7/1/83 U4370-5 A

Credit
Research
Center

MONOGRAPH NO. 25

Prices of Consumer Credit In the Absence of Rate Ceilings

A. Charlene Sullivan

1983

Krannert Graduate School of Management – Purdue University

THE CREDIT RESEARCH CENTER, established in 1974, is a publicly supported, nonpartisan research and educational organization. Its purpose is to stimulate and support unbiased research in the field of consumer and mortgage credit and to further the educational purposes of the Krannert Graduate School of Management, Purdue University. The center's research focuses upon issues relevant to the credit industry, consumers and governmental bodies. The center operates as a nonprofit organization within Purdue University. The publication of the Credit Research Center take three major forms:

1. Working Papers. Preliminary drafts of research studies prepared for comment and criticism.
2. Reprints. Journal articles and other publications authored by the staff of the center or researchers aided by the center.
3. Monographs. In-depth research studies in the fields of consumer and mortgage credit.

The Credit Research Center has available a continually updated computerized bibliography covering consumer credit and mortgage credit. Citations include journals, books, theses, hearings, government publications, and proceedings. Additional information about the bibliography may be obtained by writing CRC, Krannert Graduate School of Management, Purdue University, West Lafayette, Indiana 47907.

GOVERNING BOARD

Dennis J. Weidenaar
Acting Dean
Krannert Graduate School of Management
Purdue University

Robert W. Johnson
Director
Credit Research Center
Purdue University

Kenneth W. Clarkson
Director, Law and Economics Center
School of Law
University of Miami

Elsie Fetterman
Director of Home Economics
University of Massachusetts

Walter R. Kurth
President
Associated Credit Bureaus, Inc.

Arthur P. Leiss
Legal Operation
General Electric Credit Corporation

E. Scott Maynes
Professor
Department of Consumer Economics
and Housing
Cornell University

Robert P. Shay
Professor of Banking and Finance
Graduate School of Business
Columbia University

Ted L. Spurlock
Vice President and Director
Credit Department
J.C. Penney Company

STAFF

Robert W. Johnson, Director
A. Charlene Sullivan, Associate Director
Richard L. Peterson, Senior Research Associate
William C. Dunkelberg, Senior Research Associate
John J. McConnell, Senior Research Associate

PRICES OF CONSUMER CREDIT IN THE ABSENCE OF RATE CEILINGS

A. Charlene Sullivan*

Abstract

Many states have raised or removed legal restrictions on rates that may be charged for consumer credit in the last few years. These states provide opportunities to evaluate the behavior of rates in a "free" market setting and to observe the level of price competition which takes place among different types of lenders and lenders of a given type when they are unfettered by regulation.

In this study we analyzed the level and range of rates for various types of consumer credit contracts in two states--Arizona and Illinois. The analysis was based on observations of the "most likely" rates charged by a random sample of creditors during the last business week of March 1983.

The analysis shows that in markets with no legal rate ceiling for consumer loans:

(a) The level of rates was consistent with that of benchmark rates depicting the prevailing general level of interest rates in the economy.

---

*Associate Director, Credit Research Center, Purdue University. The author thanks Robert W. Johnson for his helpful comments, Debra A. Drecnik and Margaret Woo for computational assistance, Martin Nichols for preparation of the graphs and Marty Lynch, Cindy Overman, and Betty Schoenhals for processing and coding the questionnaires. Any errors or opinions are the sole responsibility of the author.
Copyright © 1983 by the Credit Research Center, Krannert Graduate School of Management, Purdue University, West Lafayette, Indiana 47907.

(b) There was considerable diversity in rates charged by a particular type of creditor for a given type of loan, and rates charged by different types of creditors for a given type of credit contract were even more diverse.

(c) Even with no rate ceilings, there was generally a low level of price competition between banks and consumer finance companies. The segmentation of rates charged by these creditors reflects active strategies to segment the market by risk characteristics of consumers or to differentiate loans made by the two types of creditors along the dimensions of service, atmosphere, readiness to recontract, etc.

(d) Credit unions were the low-price leaders in the unregulated markets.

(e) Savings and loan associations charged rates similar to those charged by banks.

(f) Revolving credit plans from retailers had finance charges very similar to those of bank credit cards.

The two states selected for the study had widely divergent banking structures. Illinois, until 1982, was a unit banking state with approximately 1200 banks. Arizona allows statewide branching and has a highly concentrated banking system. These differences provided an opportunity to analyze the relationship between rates of charge and the level of competition in a state. The analysis shows that:

(a) The average rates charged by banks for five of eight types of credit contracts during the study period were significantly higher in Arizona than in Illinois.

(b) Average rates charged by banks with the largest portfolios of consumer credit in the two states were not markedly different. However, the average rates charged by all other size categories of banks in the two states were different by at least 100 basis points, with the banks in Illinois charging lower rates.

(c) Banks with the smallest consumer credit portfolios (dollar value) in each state charged the lowest rates, on average, among banks.

(d) The structure of banking in the two states did not have a systematic relationship with the level of rates charged by nonbank competitors in the two states.

(e) The perceived number of bank competitors in a local market did not have a significant influence on rates charged by nonbank competitors in Illinois.

In the last few years, barriers to interstate banking have been circumvented for certain banking products, a development that could reduce interstate variation in prices of banking products. In retail banking, credit cards are issued at a fixed price by single banks to consumers across the country. In addition, nonbank creditors have used special credit programs to merchandise automobiles. In this study, we found that there was considerable variation in fees for bankcards within a state and across a state. However, the average stated finance charge for bankcards was not significantly different across the two states. Rates for new auto credit were different among markets within a state and between states for banks but not for credit unions.

Average rates for unsecured personal loans, a local market product, were significantly different between the two states and across local markets within a state.

The general policy implications of the results are that workable competition exists even in markets that are highly concentrated. The evidence indicates that the forces of competition keep rates for consumer credit at levels that are consistent with the prevailing general level of interest rates and the national level of consumer finance rates.

PRICES OF CONSUMER CREDIT IN THE ABSENCE OF RATE CEILINGS

A. Charlene Sullivan

In the high interest rate environment that persisted in the last five years, the legislatures of many states voted to raise or remove rate ceilings on consumer credit. In some states, however, rate ceilings remain at very low levels. And, in other states, the legislation that raised rate ceilings included sunset provisions that provided for reexamination of the issue at some future date. States that have sunset provisions which call for review in 1983 include Connecticut, Montana, New Mexico, South Dakota, Kansas, and Tennessee.[1]

The results of this research will be useful for those who are considering the removal of a rate ceiling or who have a sunset provision in their state law. We do not view "horror stories" in the new media as appropriate guides to public policy. By presenting a more complete view of the range of rates charged in a state with no rate ceiling, we hope to provide balanced evidence to guide public policy in this important area.

Background of Research

The need for and effects of rate ceilings on nonmortgage consumer credit have been argued and researched for years. Opponents to rate ceilings argue that in the absence of rate ceilings, competition in the consumer credit marketplace will keep rates charged by creditors at levels that are not unconscionable. They assert that in the presence of binding rate ceilings, the avilability of cash credit is severely reduced, especially to consumers of high credit risk.

Empirical evidence indicates that when consumers find their ability to obtain cash credit from financial institutions restricted, they substitute sales credit for cash credit [7].

Proponents of rate ceilings argue that consumer credit markets are not sufficiently competitive to keep lenders from charging unconscionably high rates for credit. To give further credence to this argument, they propose that lenders can charge high rates and stay in business because consumers are insensitive to the rate of finance charge for credit and shop only for availability of credit or low monthly payments. To support their hypotheses, proponents of rate ceilings present examples of credit contracts in which rates charged by used car dealers are very high.

Determinants of Rates on Consumer Loans

The determinants of the level of finance rates in a market is a particularly important aspect of this study. In the absence of interest rate ceilings the level of finance rates charged is determined by such factors as the intensity of competition, level of production costs, and strength of demand.

Given that commercial banks provide the bulk of consumer credit, the structure of banking in a market has a significant influence on the level of competition and the level of rates for consumer credit. Analyses of interstate variations in average rates of charge for new auto credit performed by the National Commission on Consumer Credit showed that the average rate in a state was associated with bank concentration and the type of banking structure permitted (unit vs. branching).[2] Rates were highest in states that permitted statewide branching

and had highly concentrated banking (a small number of banks held the bulk of bank assets in a state). Rates were lowest in states with unit banking laws where concentration of bank assets was relatively low.

The strength of demand also influences the level of interest rates observed in the market. If other things are held constant, in markets where demand for credit is high, the level of rates will be high relative to that in markets where demand is low. For example, holding other things constant, in states where the population is growing at a rapid pace, rates may be higher than in states with no growth or where population is declining. A high level of demand and restrictions on the supply of funds in a market are conditions for very high rates.

Although commercial banks hold the largest share of outstanding consumer credit, other creditors such as credit unions, consumer and sales finance companies, and retailers are also important competitors. These competitors have different sources of funds, different costs of production, and different objectives for the activity of consumer lending. Consequently, profitable rates of charge for a given type of credit may vary widely across types of lenders. To operate in a competitive market, some lenders specialize in serving high-risk customers. Or they may deliver loans in such a way (greater convenience, speedier processing, friendlier service, more liberal debt rescheduling in the event of delinquency) as to enhance the value of the high-priced loan relative to the low-priced loan. While specialization may result in cost efficiencies, such practices lead to less competition among type of creditors and a broad range in available rates in a market for a given type of credit.

In addition, because of imperfect and costly credit information, creditors may establish house rates for the various types of loans offered. The house rate may reflect the creditor's experience with consumers of various risk classes or a strategy to penetrate a particular segment of the market. The house rate limits the creditor's ability to serve a diverse group of consumers and affects intersource as well as intrasource variation of rates.

DESIGN OF THE PROJECT

Purpose of Research

The goals of this research were to map the distribution of rates charged for various types of cash and noncash credit by a representative sample of creditors in an unregulated state, to evaluate the level of rates on consumer credit relative to the general level of interest rates. and to analyze the level of rates in light of the competitive nature of the credit market. Although the relevant market for consumer credit is generally a local market, in this project we have measured rates on a statewide basis.

Research Methodology

We collected data concerning rates charged by all types of creditors in two states that have removed rate ceilings for consumer credit--Illinois and Arizona.[3] The two states were chosen to represent markets with potentially large differences in competitive conditions. The state of Illinois is a heavily populated midwestern state with regulations that limit branch banking[4]--there are 1252 banks serving the state of Illinois which had a population of 11.4 million people in 1980. This translates

into a population/bank ratio of 9120. Population per bank office was 5931. The population in Illinois increased by 0.3 percent annually between 1970 and 1980.[5]

The state of Arizona has statewide branching and a relatively small number of banks. There are 34 banks serving a population of 2.7 million people in Arizona for a population/bank ratio of 79,941. Population per bank office was 4369. The banking structure in Arizona is very concentrated with three banks holding about 85 percent of bank assets. This combination of statewide branching and high concentration creates conditions most detrimental to new entry, a factor that influences the level of competition in a market.[6] The population in Arizona increased by 4.3 percent annually between 1970 and 1980.[7] Given the differences in the structure of banking and growth in population or demand for credit in the two states, we expected to find higher rates for credit in Arizona than in Illinois. However, if rates are at reasonable levels in Arizona, one can deduce that rate ceilings are even less appropriate where competition is keener.

Data were collected through a mail questionnaire sent to each creditor included in the sample frame. A sample questionnaire is available in Appendix A. The creditor sample was drawn from a list of banks, savings and loan associations, consumer finance companies, and credit unions that operated in one of the two states. National and independent retailers who offered credit and carried their own paper were also included in the study.

Each creditor was asked to quote the most likely rates and other charges assessed during a specified period of time for each of several types of credit contracts: credit cards, unsecured cash loans with

specified size and maturity, direct new and used auto loans with specified size, maturity, and loan-to-value characteristics and second mortgage loans. Finance charges for standard contracts were collected from retailers and dealers. Data on rates of charge were collected from those retailers who issued proprietary cards.

Since the commercial bank chains in Arizona did not vary rates from city to city, no effort was made to collect data on intrastate markets. In Illinois, data were collected from all respondents concerning the competitive character of the local credit market served (number of banks in the market) and the population in the town where the respondent was located. In both states, respondents were asked to indicate the dollar value of total consumer credit outstandings as of year-end 1982. With these data, we analyzed the relationship between the size of the consumer credit function and market structure on the level of rates for various types of credit contracts within the state of Illinois.

The Sample Selection Procedure

To design a random sample of creditors we obtained complete lists of banks, credit unions, and savings and loan associations (S&L) in the two states. In Illinois, from a random starting point, we selected every other bank, credit union, and S&L on the list. This procedure was also followed for credit unions in Arizona. All of the banks and S&Ls in Arizona were included in the sample because of the small number of institutions serving that state. The number of each type of creditor in the population and in the sample frame is shown in Exhibit 1.

EXHIBIT 1

POPULATION AND SAMPLE FRAME

	Population	Number Of Questionnaires Mailed	Percent Of Population
Illinois			
Banks	1252	626	50%
Finance companies*			
National & regional	22	22	100
Independent	95	95	100
Credit unions	870	435	50
Savings & loan	316	158	50
Retailers**	132	132	100
Arizona			
Banks	34	34	100%
Finance companies*			
National & regional	22	22	100
Independent	4	4	100
Credit unions	64	32	50
Savings & loan	10	10	100
Retailers**	239	239	100

*Members of the American Financial Services Association.

**Retailers who regularly requested credit reports from national credit reporting agencies.

There were a large number of finance company offices representing national or regional chains in both states. The national companies indicated that rates charged for various types of loans were typically the same for all offices of a single company within a state. The finance company offices were grouped by interstate companies and independents and a questionnaire (two if a company operated in both states) was sent to the headquarters of each of the national and regional chains. All of the independent finance companies in each state were included in the sample frame. The finance affiliates of automobile manufacturers were also included in the sample although they were providing special finance programs for certain models of new autos at the time.[8]

The sample frame of retailers included those who, on the basis of their relationships with credit reporting agencies in Illinois or Arizona, were believed to carry their own credit. Those creditors were oversampled relative to their share of credit outstanding because, as a "last ditch" source of credit, one might expect then to require a higher rate than creditors who assume less credit risk.

The Respondents

The response rate for the study was very high, ranging between 25 percent and 77 percent across types of creditors sampled (Exhibit 2). A second mailing was made to major banks and independent finance companies in both states to boost the response rate of those creditors.

To assure that the respondent banks were representative of the original sample, the total assets of all banks included in the sample frame and of the responding institutions were compared (Exhibit 3).

EXHIBIT 2

ANALYSIS OF RESPONSE

	Sent	Returned Undeliverable	Responses Returned	Response Rate	Coded Responses (Returned before deadline)
Banks					
Illinois	660	3	235	36%	232
Arizona	34	1	15	45	12
Credit unions					
Illinois	435	2	225	52	213
Arizona	32		12	38	11
S&L					
Illinois	158		58	37	40
Arizona	10		4	40	2
Retailers					
Illinois	132	8	39	31	33
Arizona	239	15	64	29	53
Independent Finance Companies					
Illinois	95	23	23	32	18
Arizona	4		1	25	1
National Finance Companies					
Illinois	22		17	77	17
Arizona	22		15	68	15

EXHIBIT 3

DISTRIBUTION OF SIZE OF ORIGINAL SAMPLE AND RESPONDENTS

	Sample Frame	Percent	Respondent Sample	Percent
Banks In Illinois				
Size (dollar value of assets)				
Less than $50 million	497	75%	164	73%
$50-100 million	87	13	31	14
> $100 and ≤ $500 million	71	11	28	12
> $500 and ≤ $1000 million	3	<1	1	<1
More than $1 billion	9	<1	1	<1
	667	100%	225	100%
Banks In Arizona				
Less than $50 million	26	76%	6	46%
$50-100 million	1	3		
> $100 and ≤ $500 million	3	9	4	31
> $500 and ≤ $1000 million	1	3		
More than $1 billion	3	9	3	23
	34	100%	13	100%
Credit Unions In Illinois				
Less than $500,000	251	54%	105	48%
$500,000-1,000,000	74	16	35	16
> $1 and ≤ $5 million	103	22	52	24
> $5 and ≤ $10 million	21	4.5	13	6
> $10 and ≤ $25 million	12	2.5	9	4
More than $25 million	4	1	3	1
	465	100%	217	100%*

*Total does not add to 100% due to rounding.

The size distribution for the respondent group was almost exactly like that of the original sample of banks in Illinois. The respondent banks in Arizona were more likely to be large banks with total assets of $1 billion or more than existed in the population in Arizona. However, the three large respondent banks represent 85 percent of total bank assets in Arizona. Consequently, the rates from our sample in Arizona are representative of the most common rates available from banks in Arizona.

I. THE LEVEL AND RANGE OF FINANCE RATES

Financial institutions were asked to provide the most likely rate (APR) charged on loans approved to depositors and nondepositors during the business week of March 28 - April 2, 1983. They were also asked to provide the highest and lowest rates charged on the same types of loans during the 30 days before the date the survey was completed.

The types of loans for which data were collected varied slightly by type of creditor, but the common set for each creditor included new auto, late model used auto, older model used auto, second mortgage (APR and points) and unsecured personal loans. The specific characteristics of the loans were:

(1) New car, $8000, 85% loan-to-dealer-cost (wholesale) ratio, 48-months;

(2) Late model used car, (under 2 yrs. old) $5000, 90% loan-to-dealer-cost (wholesale) ratio, 42-48 months;

(3) Older model used car, (3-4 yrs. old) $3000, 90% loan-to-dealer-cost (wholesale) ratio, 36-months;

(4) Second mortgage loan, $10,000, 5 years, loan-to-equity value not greater than 75%;

(5) Unsecured personal loans:

(1) $1000, 12-month

(2) $2000, 24-month

(3) $4000, 36-month

In the presentation of the results, the mode of the distributions of most likely rates available to nondepositors for auto and unsecured personal loans, second mortgage loans, and for bankcard accounts and revolving credit for each creditor are analyzed. The rates for non-depositors were used because data concerning depositor requirements which could affect the cost of credit were not collected. In addition, for each type of creditor the group maximum and the group minimum of rates charged in the 30 days before the survey are summarized. The range of most likely rates charged in a state ("the market") is shown for a given loan type by consolidating all the distributions of most likely rates for all responding creditors. This presentation does not represent the frequency of dollar volume of loans with various rates but rather the frequency with which various rates were the "most likely" rates for each type of respondent making a particular type of loan.

A. Rates on New and Used Automobile Loans

The Benchmark Rate

It is difficult to identify a "free" market finance rate which is useful to evaluate the "appropriateness" of all consumer credit rates because those contracts vary greatly in term and risk. More than half of total consumer credit outstanding was extended for the purchase of vehicles, and data are collected periodically by the Federal Reserve Board concerning the "most likely" rate charged by a national sample of

commercial banks for new auto loans with maturity of 36-months. We estimated the time series relationship between the three-year constant maturity Treasury bill rate (a "free" market rate) and the average rate charged by commercial banks for 36-month new car loans and found that the two rates were highly correlated (Exhibit 4).[9] Based on the historical relationship between the three-year Treasury bill rate and the 36-month commercial bank new car rate, we estimated the average market rate (APR) for new auto loans at the end of March 1983 in an unregulated market to be about 14.02 percent.[10]

The Federal Reserve Board reported that the most likely rate from commercial banks in February 1983 for new car loans maturing in 48 months was 14.81 percent.[11] During April 1983, Chase Manhattan Bank reported a base rate on auto loans of 15 percent. Manufacturers Hanover Trust reported a rate of 14-1/2 percent on new auto loans and the Bank of New York announced a cut in auto loan rates to 13-3/4 percent.[12] These rates suggest that there was not a large movement in rates nationwide from February to April although rates were trending downward.[13] From these quotations and the estimated free market rate above, we expected "most likely" rates in Illinois and Arizona for new car loans from commercial banks to range between 13 and 16 percent, with the higher rates in Arizona.

The Most Likely Rates

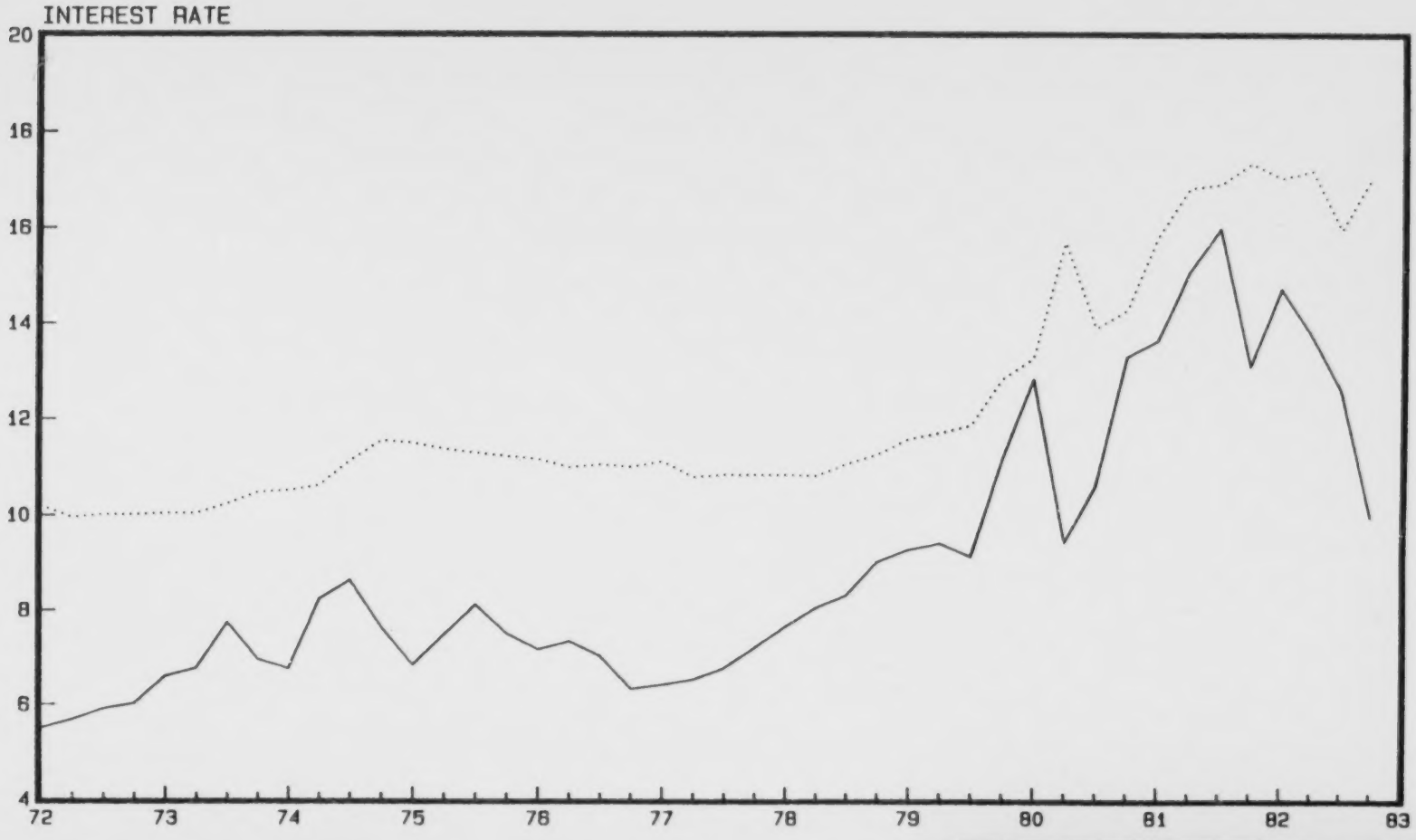
Commercial Bank Rates. The modal "most likely" APR charged by commercial banks in Illinois during the last week of March for direct new auto loans of $8000 with maturity greater than or equal to 48-months was 14.00 percent, a rate which was consistent with our expectations

EXHIBIT 4

36 MONTH NEW CAR LOAN RATE

VERSUS 3 YEAR TREASURY BILL RATE

MONEY MARKET ——— COMMERCIAL BANK .....



BEST AVAILABLE COPY

(Exhibit 5). The range of rates offered by banks in Illinois in the previous 30 days was surprisingly broad with a low rate of ten percent and a high rate of 18.50 percent. The low rates probably reflect the competitive influence of the low rates offered on indirect auto loans by the financial affiliates of automobile manufacturers.

The modal most likely rate for new auto loans from banks in Arizona was higher than that in Illinois by 100 basis points. The range of available rates in the previous 30 days was not as broad as that found in Illinois--the lowest rate in Arizona was considerably higher than the lowest rate available in Illinois. This difference may be attributed to the lower level of competition (fewer banks) and the high level of concentration of banks assets in Arizona or to high consumer demand.

The mode of the most likely rates available to nondepositors in Illinois for both types of used car loans was 15.00 percent. The rates charged in the 30 days before the survey ranged from ten percent to 21.5 percent. The mode of the most likely rates for both types of used car loans from commercial banks in Arizona were higher than those in Illinois (again by 100 basis points) and the range of available rates was not as wide as that found in Illinois.

The surprising finding is the breadth of the range of rates for automobile loans from commercial banks in both states. Banks do not use similar house rates or do not use house rates at all. A consumer who shops for an auto loan who does not have a deposit account with a bank may find that there is considerable benefit in extending the search across many banks, although studies have shown that bank loan customers

EXHIBIT 5: ANNUAL PERCENTAGE RATES FOR AUTOMOBILE LOANS (UNWEIGHTED RATES)***

Loan Type		Banks		Credit Unions		Savings and Loans		National Consumer Finance Companies		Independent Consumer Finance Companies	
		Illinois	Arizona	Illinois	Arizona	Illinois	Arizona	Illinois	Arizona	Illinois	Arizona**
New auto, $8000	Mode	14.00	15.00			14.00	16.50	16.00*	19.50*	22.00	
85% loan-to-dealer cost,	N	175	12			25		-	-	8	
> 48-month maturity	High	18.50	18.00			16.80	16.75	24.00	19.50	25.00	
to nondepositors	Low	10.00	13.50			11.50	16.50	16.00	19.50	11.89	
New auto, $8000	Mode			12.00	15.00						
85% loan-to-dealer cost,	N			165	7						
> 48-month maturity	High			18.00	18.00						
to depositors	Low			9.00	10.80						
Late model used car,	Mode	15.00	16.00			15.00	17.50	24.00	18.26	23.00	
$5000, 90% loan-to-dealer cost,	N	145	12			20		5	-	6	
> 42-48 month maturity	High	20.50	20.00			17.08	17.59	24.00	19.50	26.00	
to nondepositors	Low	10.00	14.00			12.00	17.50	16.00	18.26	18.00	
Late model used car,	Mode			15.00	15.00						
$5000, 90% loan-to-dealer cost,	N			169	6						
> 42-48 month maturity	High			18.00	16.00						
to depositors	Low			9.00	13.00						
Older model used car,	Mode	15.00	16.00			14.00	17.50	24.00	20.02	25.00	
$3000, 90% loan-to-dealer cost,	N	147	12			18		6	5	13	
> 36-month maturity	High	21.50	20.00			19.87	17.50	29.29	30.00	30.00	
to nondepositors	Low	10.00	14.50			13.00	17.50	17.00	19.50	14.55	
Older model used car,	Mode			15.00	15.00						
$3000, 90% loan-to-dealer cost,	N			173	6						
> 36-month maturity	High			18.00	16.00						
to depositors	Low			9.00	15.00						

*Does not include the financial affiliates of the major domestic auto manufacturers.

**No responses.

-Less than four national finance companies made new auto loans in either state.

***Mode of most likely rate during week of March 28 - April 2, 1983; High is highest rate and low is lowest rate offered by the respondent group for that loan type in the previous 30 days.

do not shop for credit terms as much as loan customers of other types of financial institutions [6]. In Illinois, where banks are limited in terms of the geographic scope of the market they may serve, the diversity in rates may reflect different levels of competition in different geographic markets encompassed by the survey. Every consumer in Illinois may not have had such a range of choices when shopping for auto credit. However, in Arizona, where the major banks have many branches, these data may approximately reflect the range of choices available to a given bank loan customer.

Credit Union Rates. The modal most likely rates available at credit unions were the same in both states for each type of auto loan with the exception of new auto loans. The modal rates were less than or equal to the modal rates for bank loans in all cases. In both states, most rates on new car loans were either 12 percent or 15 percent. Although credit unions were obviously not limited by law to charge these rates, the prevalence of those rates probably reflects the overhang of old restrictions on allowable rates of charge for state and federal credit unions.

Savings and Loan Association Rates. These financial institutions have not been major forces in the market for consumer credit until recent legislation facilitated their diversification into that market. In December 1982, S&Ls held 2.5 percent of total consumer credit outstandings. However, from December 1981 to December 1982, consumer credit outstandings at S&Ls increased by 19.8 percent in contrast to a three percent increase in total consumer credit outstanding over the same period.

There was only a small number of S&Ls in either state making automobile loans. Less than half of responding S&Ls from Illinois made new auto loans and fewer made used auto loans. Only half of those responding from Arizona made automobile loans.

The modal rate for new auto loans from S&Ls in Illinois was 14 percent with rates ranging from 11.50 percent to 16.80 percent. Modal rates for all auto loans from S&Ls in Illinois were similar to those available to nondepositors from banks. The range of rates was less broad, however. The rates charged on auto loans by S&Ls in Arizona were higher than modal rates charged by banks in Arizona and by associations in Illinois for similar loans.

Finance Company Rates. The national average finance rate charged for new car loans by auto finance companies in March was 12.07 percent (reflecting the special financing programs available at the time). The national average rate charged for used car loans by auto finance companies was 19.38 percent in March.[14]

Few of the national consumer finance companies responding to the questionnaire made loans for new vehicles in either state. The most likely rates available on new auto loans from consumer finance companies ranged from 16 percent to 24 percent in Illinois. In Arizona, the company that made new car loans charged a most likely rate of 19.5 percent. About one-third of responding companies made loans for older model used cars and a broad range of rates was available. In both states, the modal rate for auto loans from finance companies was considerably higher than rates available from banks, credit unions, and savings and loan associations. Independent finance companies in

Illinois generally charged rates competitive with those available from the national chains. No independent finance company making consumer loans in Arizona responded to the surveys.

The Market. To portray the diversity of available rates for automobile loans, a histogram showing the frequency distribution of most likely rates charged to nondepositors for each type of auto loan in each state was prepared. If one views a state as the relevant market for consumer credit, the histograms display the breadth of choice in rates that consumers had when shopping for a direct auto loan. The histograms were not constructed to show the frequency with which various rates were charged for new auto loans extended in a state during the week of the study. Rather the histograms show the frequency of "most likely" rates charged by various types of lenders and how the various lenders differ in terms of diversity and levels of available rates. Given that all lenders do not generate equal volumes of loans, these charts cannot be used to portray the incidence of various rates in the market.

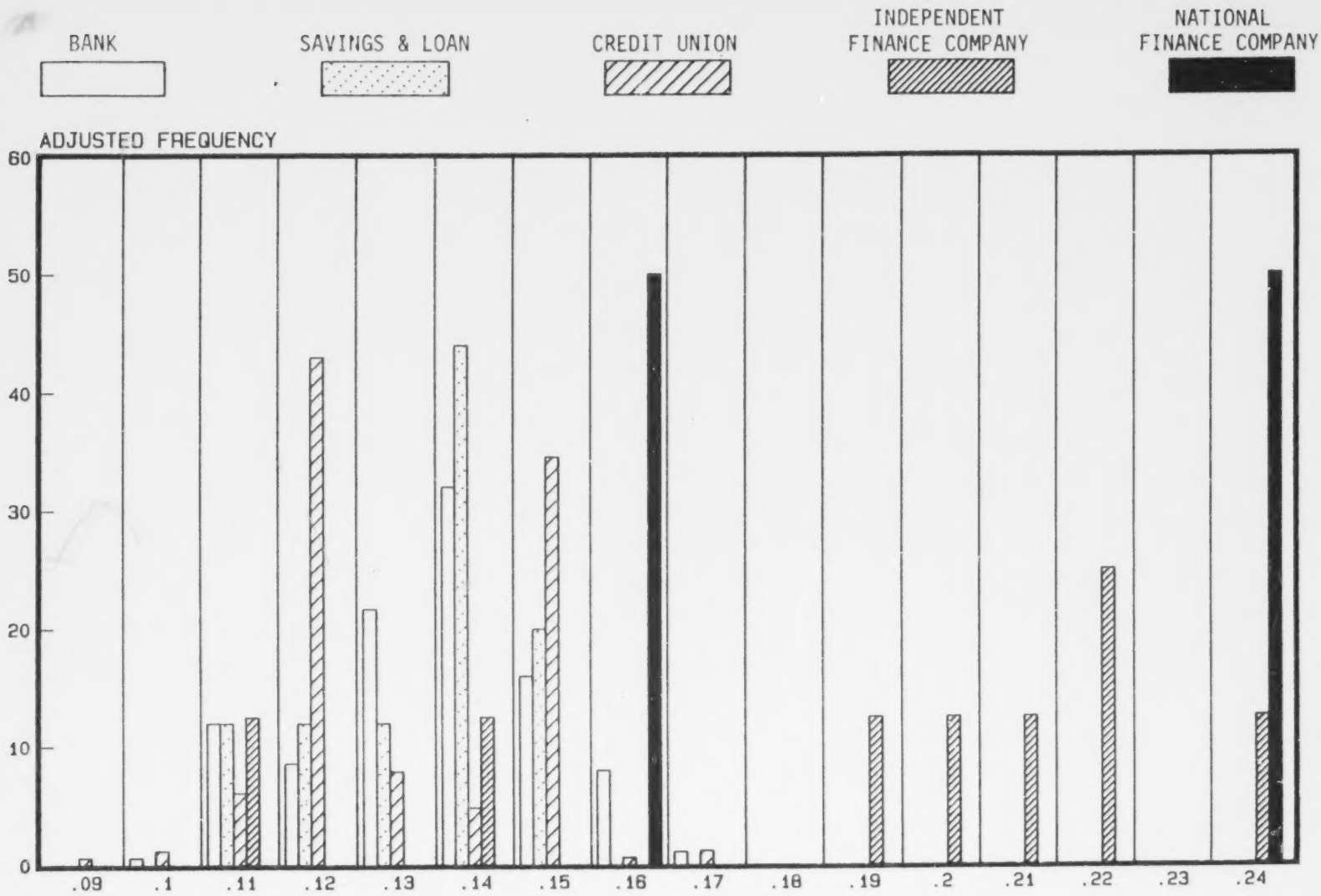
One could argue that the relevant market for consumer credit is a local market rather than statewide and consequently the histograms do not represent the choice of rates available to any one consumer. Perhaps the histograms are more likely to represent the choices for a consumer in Arizona than that of a consumer in Illinois because of the restrictions on bank branching in Illinois. However, in markets in Illinois sufficiently large to be served by several banks, a credit union, and a finance company, the range of rates was extensive and the histograms may be used to approximate that range.

The range of rates on auto loans in these markets may reflect fertile credit shopping opportunities for consumers. An explanation for such a broad range of rates on loans that are constant in terms of size, collateral and maturity is that various types of credit grantors have strategies for differentiating other terms of loans that would affect the value of the loan to the consumer (availability, service) or serve unique risk segments of the population (lenders that specialize in high-risk consumers must charge high rates and vice versa).

The level of price competition in this market can be likened to that for a shirt with a designer label. The shirt, a relatively homogeneous commodity, can be obtained at a top price from one of many department stores that also offer credit, home delivery and other consumer services. Or, the shirt could be obtained from a no-frills discount store that accepts no credit cards and will not accept returned merchandise. The discount price can be as much as 75 percent less than the department store price. The price competition between the two types of stores is determined by the value consumers place on the prestige and extra services provided by the department store and the extent to which consumers shop in both stores.

Illinois. Most likely rates for direct new auto loans ranged from nine percent to 24 percent. Reading from the chart, slightly less than ten percent of banks, about 12 percent of S&Ls and about 44 percent of credit unions reported that their "most likely" rate for new auto loans was between 12 and 12.9 percent. Given that banks, credit unions, and sales finance companies (not included) extend most new auto credit, it is clear from Chart 1 that rates for most new auto loans extended

CHART 1: DIRECT NEW AUTO LOANS - ILLINOIS



NUMBER OF CASES: Banks-175; Savings & Loan-25; Credit Unions-165; National Finance Companies-2; Independent Finance Companies-8

*Each segment on the horizontal axis represents 100 basis points. For example, rates that fell between .1200 and .1299 fall into the segment labeled .12.

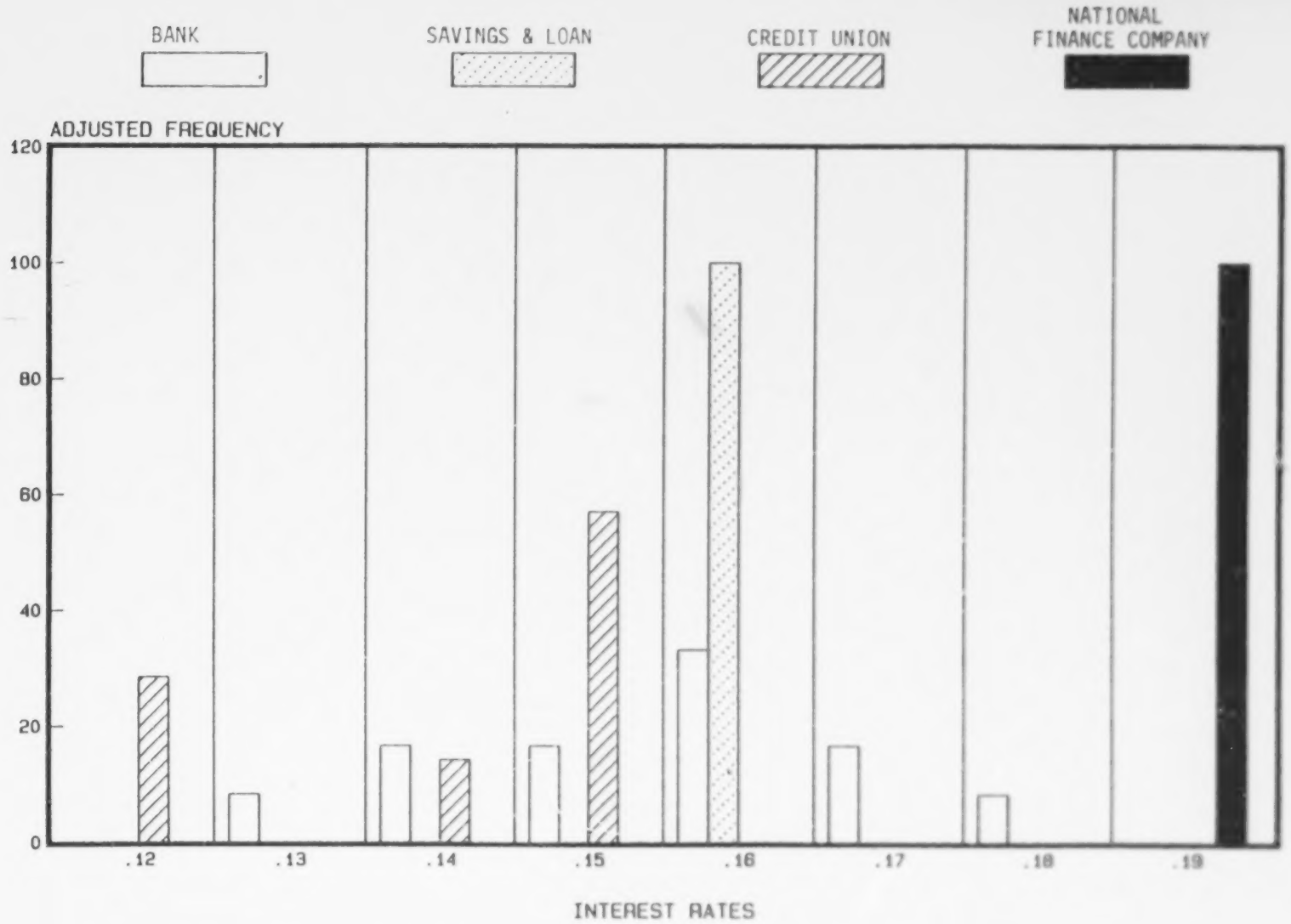
during the last week of March in Illinois fell between 12.0 and 15.9 percent. These rates are consistent with those charged by the national sample of banks during a similar time period and our benchmark rate. Credit unions were the low price leaders with the bulk of credit unions charging 12 percent. Very few credit unions charged rates above 15 percent. Rates for banks and S&Ls were similar, both occupying the middle of the histogram. The most frequently specified rate for banks and S&Ls fell between 14 percent and 14.99 percent. Most finance companies, whether national chains or independent, were not offering rates competitive with those of other lenders in the market.

Historically, rate ceilings for banks and finance companies in the state of Illinois were structured such that banks specialized in the low-risk segment of the market and finance companies served high-risk consumers. Even without rate ceilings, that tradition still appears to be generally followed.[15] The important thing to note, however, is that the major competitors in the auto credit market charged rates well below the highest rates charged in a market with no rate ceiling. And the rates clustered at a level that was consistent with the prevailing level of interest rates in the economy.

Arizona. The distribution of most likely rates in Arizona went from 12 percent to 19 percent (Chart 2). Rates provided by the most voluminous lenders of direct new auto loans (banks, credit unions) in Arizona clustered in the range of 14 percent to 16.9 percent. The narrower distribution of rates for auto loans in Arizona than that in Illinois could reflect the concentration of the market in Arizona. Credit unions offered the lowest rates. Rates available from commercial banks were almost normally

BEST AVAILABLE COPY

CHART 2: DIRECT NEW AUTO LOANS - ARIZONA



NUMBER OF CASES: Banks-12; Savings & Loan-2; Credit Unions-7; National Finance Companies-1

*Each segment on the horizontal axis represents 100 basis points. For example, rates that fell between .1200 and .1299 fall into the segment labeled .12.

distributed around a mean of 16 percent. All rates from S&Ls were the same--16 percent. Finance companies occupied the high end of the continuum. Again, in metropolitan markets in Arizona, this continuum is probably representative of the choices for consumers shopping for direct auto credit.

Volume-Weighted Rate Distribution. The lenders included in the study are not equally important in the market for direct new auto loans in terms of volume of loans extended. However, the frequencies in Chart 1 and 2 are not weighted to reflect the importance of a particular lender or group of lenders in terms of dollar volume of loans extended. To get a better idea of the actual incidence of various rates for a new auto loan in the two states, we calculated a frequency distribution of rates weighted by the dollar volume of consumer loans held by the respondent.

The volume-weighted frequency of rates for new auto loans in the two states is shown in Charts 3 and 4. To construct these charts we assumed that each respondent's total dollar volume of consumer loans was invested in new auto loans. The bar at .12 in Charts 3 and 4 is the percent of respondents' total outstandings that was held by respondents whose most likely rates for new auto loans fell between 12 percent and 12.9 percent.

The dollar weighted distribution of new auto loans in Illinois was bimodal with about 23 percent of the dollar volume of loans outstanding at rates between 11 and 12.9 percent and about 32 percent at rates between 14 and 14.9 percent. The distribution in Arizona spiked at the 16-16.9 interval--that being the most likely range of rates offered

CHART 3

ILLINOIS

DIRECT NEW CAR LOANS

(Volume-Weighted Frequency)

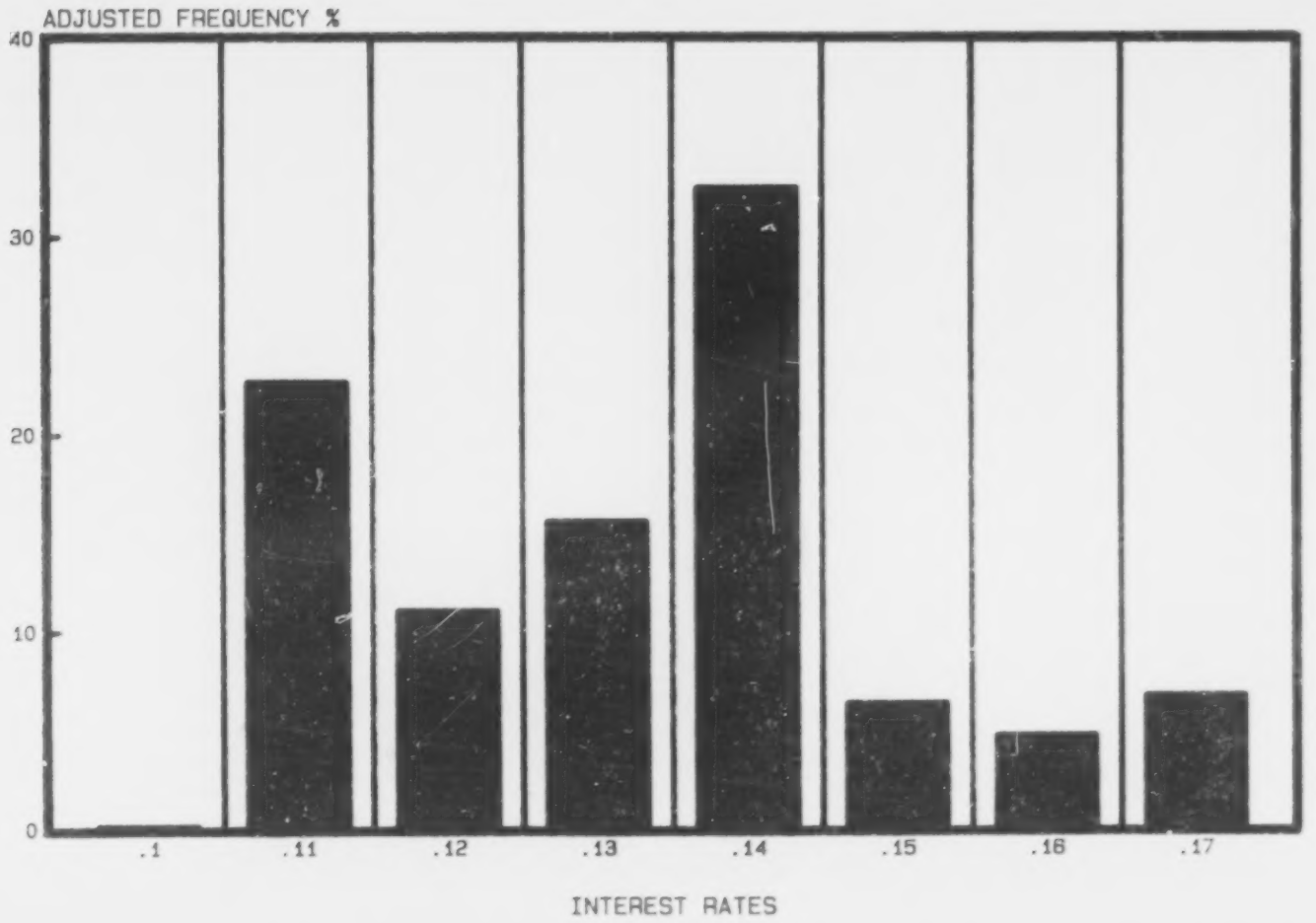
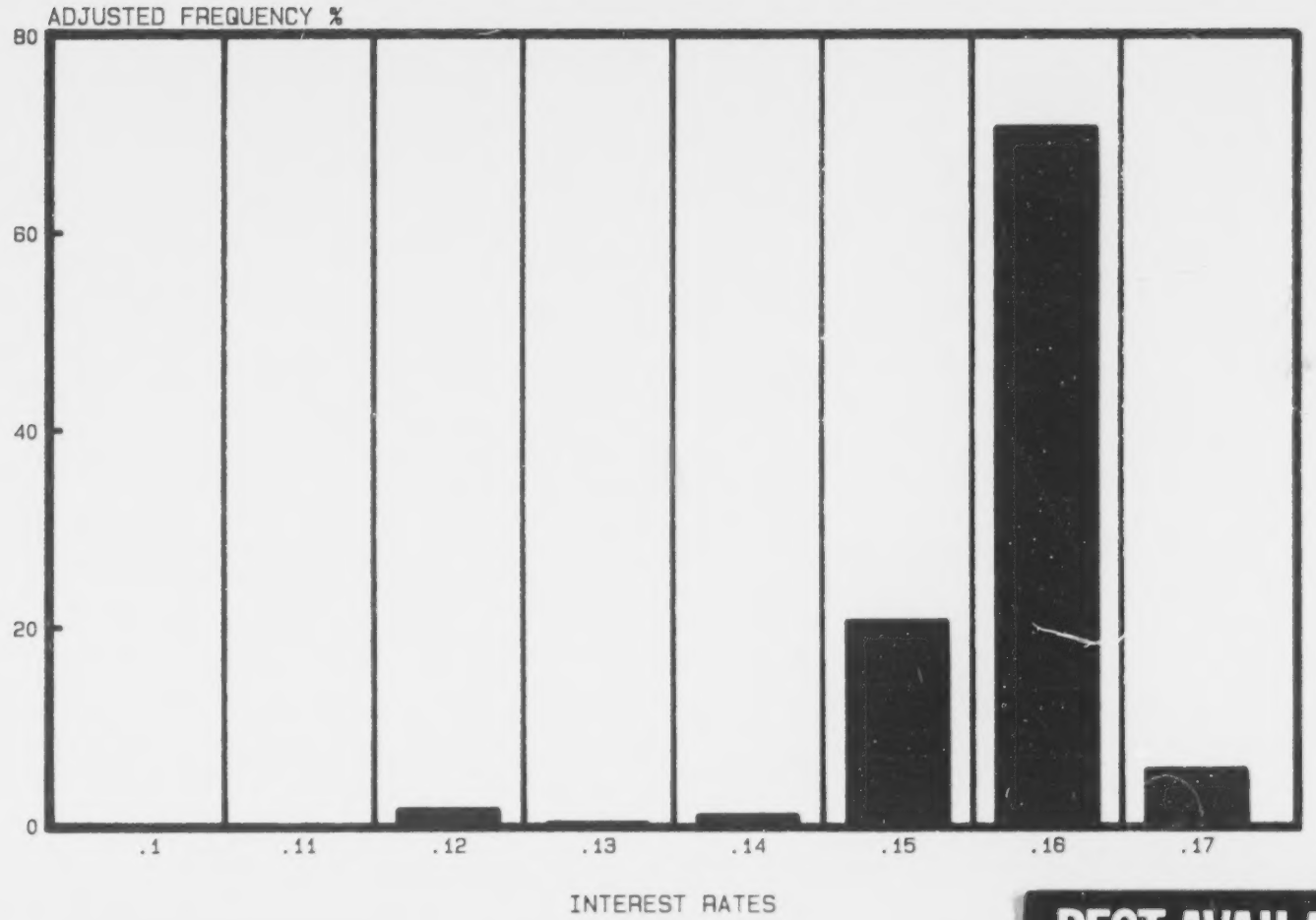


CHART 4

ARIZONA

DIRECT NEW CAR LOANS

(Volume-Weighted Frequency)



BEST AVAILABLE COPY

by the major commercial banks in that state. In both states, less than seven percent of the dollar volume of new auto loans was extended at rates of 17 percent or more.[16] These charts accentuate the rather sharp differences in rates for new auto credit in the two states.

Availability of Special Loan Terms. A limited number of banks (eight banks or 3.5 percent) in Illinois had variable rate loans available for the purchase of a new automobile. Even fewer made used car or second mortgage loans with variable rates. A survey conducted by the American Bankers Association in 1982 found that four percent of a national sample of banks offered variable rate consumer loans.[17]

About 40 percent of banks that made new auto loans in Illinois provided different rate schedules for depositors versus nondepositors. The mean difference in rates for depositors versus nondepositors was about 64 basis points in both states. Savings and loan associations in Illinois did not offer variable rate loans, but about 22 percent offered rate schedules that differed for depositors and nondepositors by an average of 57 basis points.

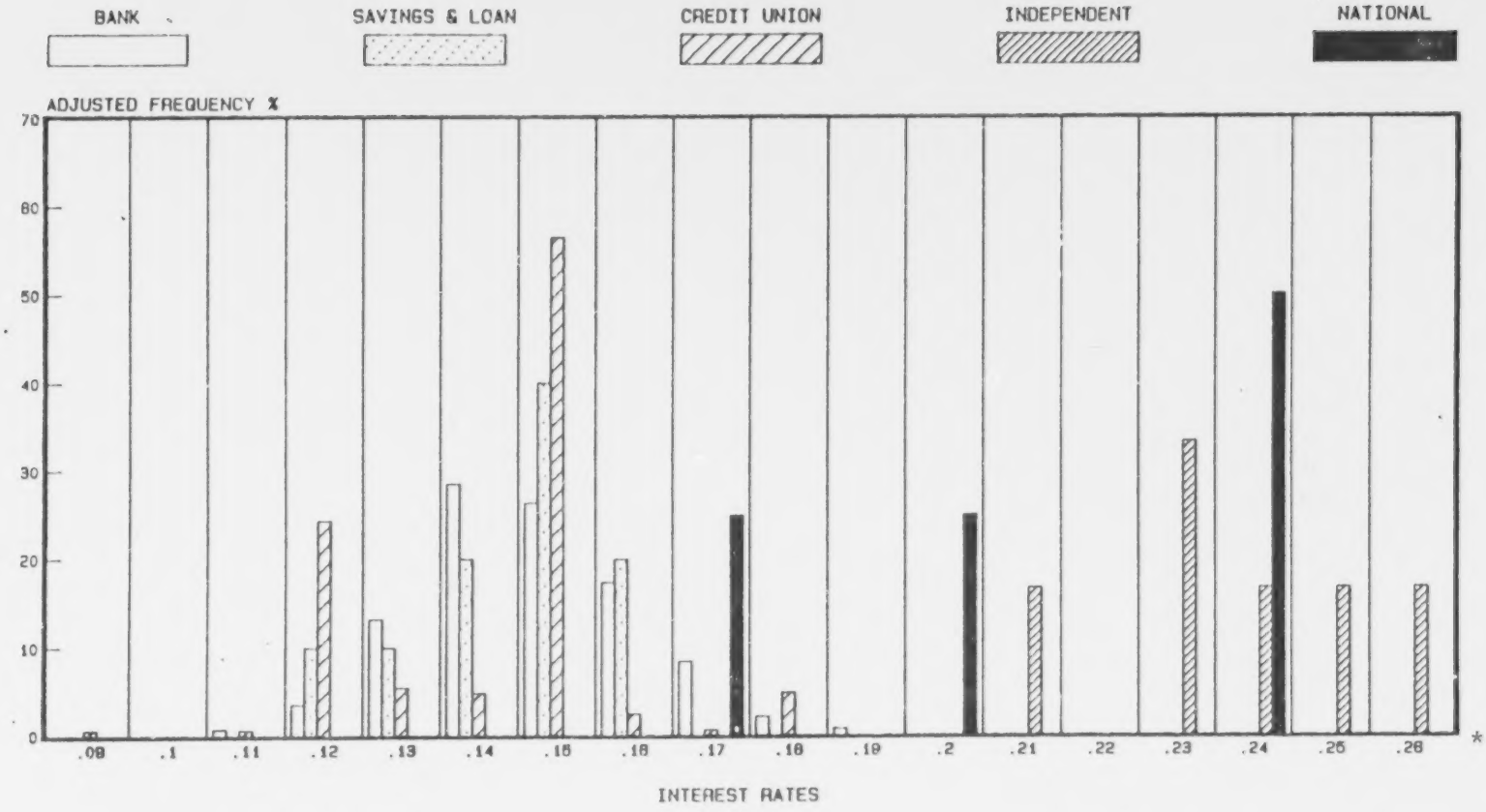
Variable rate auto loans were generally not available in Arizona but seven out of 12 responding banks (58 percent) making loans for the purchase of a new automobile offered different rate schedules for depositors and nondepositors. Twelve credit unions (seven percent) in both states offered variable rate contracts on new auto loans.

Market for Used Auto Loans. The distributions of "most likely" rates for loans for late model used cars in Illinois ranged from nine percent offered by a credit union, to 26 percent offered by an independent finance company (Chart 5). The bulk of rates fell in the range

CHART 5

ILLINOIS

LATE MODEL USED AUTO LOANS



NUMBER OF CASES

Banks-145 Credit Unions-168 Independent Finance Companies-6

Savings & Loan-20 National Finance Companies-4

*Each segment on the horizontal axis represents 100 basis points. For example, rates that fell between .1200 and .1299 fall into the segment labeled .12.

BEST AVAILABLE COPY

of 14 percent to 16.9 percent. In January, the most likely rate charged nationally by auto finance companies for used auto loans was 20.20 percent.[18] Again, there was quite a distinct separation between the most likely rates offered by banks, savings and loans, and credit unions and rates offered by finance companies. The bulk of rates offered by banks and credit unions were well below the maximum rate offered. Within the finance company group, the rates offered by the national companies were generally lower than those offered by the independent companies. This differential is consistent with data that show that the weighted average cost of funds is higher for independent companies versus national companies.

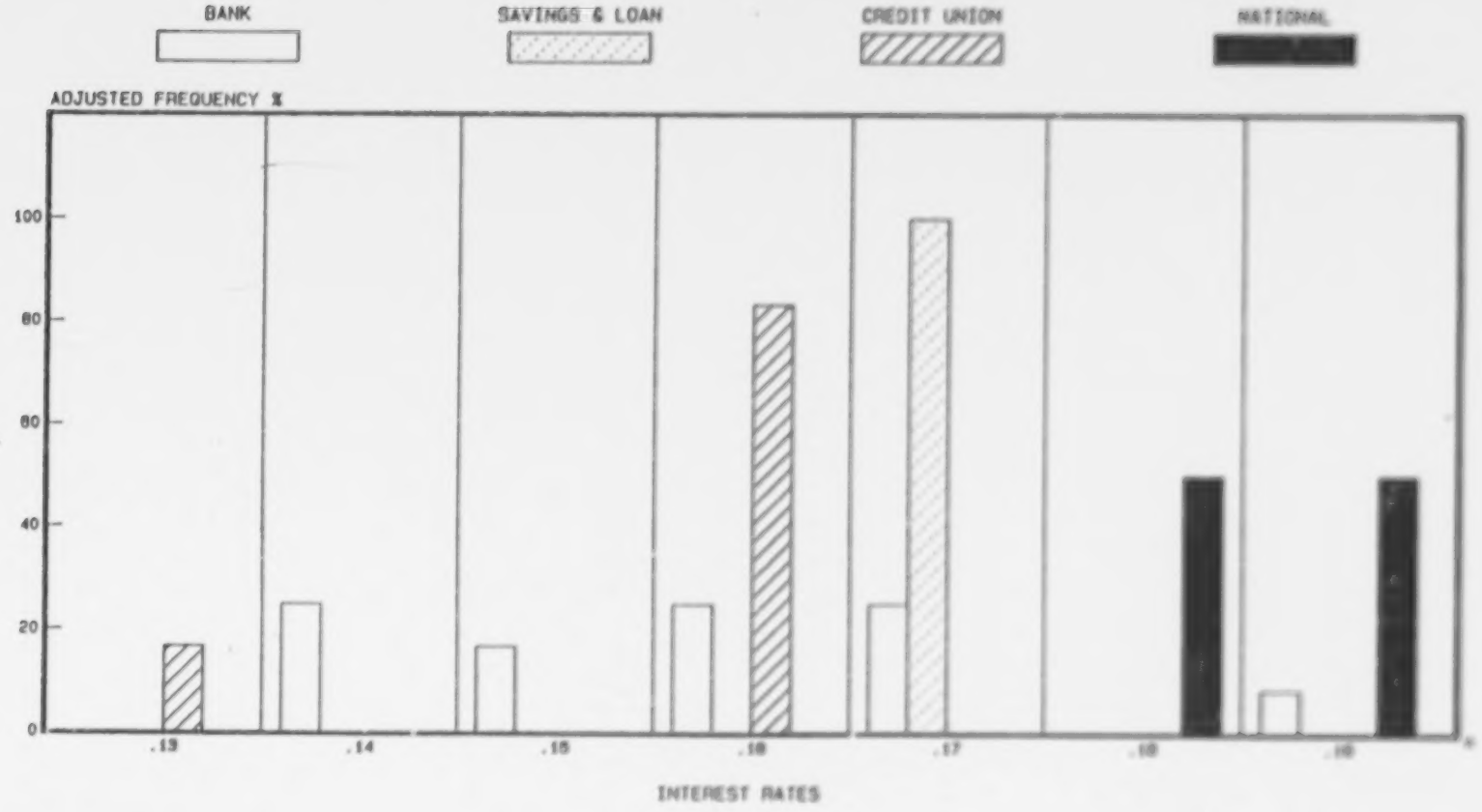
In Arizona, the spread of most likely rates for late model used cars ranged from 13 percent to 19 percent with the bulk of rates falling between 16 percent and 17.9 percent (Chart 6). There was relatively little diversity in rates offered by credit unions and all S&Ls offered the same rate. The national finance companies offered a very narrow range of rates and some banks offered rates comparable to the high rate offered by finance companies. Banks offered the most diverse array of rates of all the lenders in that state.

Loans in Illinois for older model used cars again had a very broad range of most likely rates, varying from nine percent to 30 percent (Chart 7). The distribution in Illinois appears to be bimodal with rates from financial institutions clustering around 14 percent to 16.9 percent, and rates from finance companies (both national and independent) clustering in the range of 24.0 percent to 26.9 percent. Generally, credit unions charged low rates, banks and savings and loans charged rates in the

CHART 6

ARIZONA

LATE MODEL USED AUTO LOANS



NUMBER OF CASES

Banks-12 Credit Unions-6

Savings & Loan-2 National Finance Companies-2

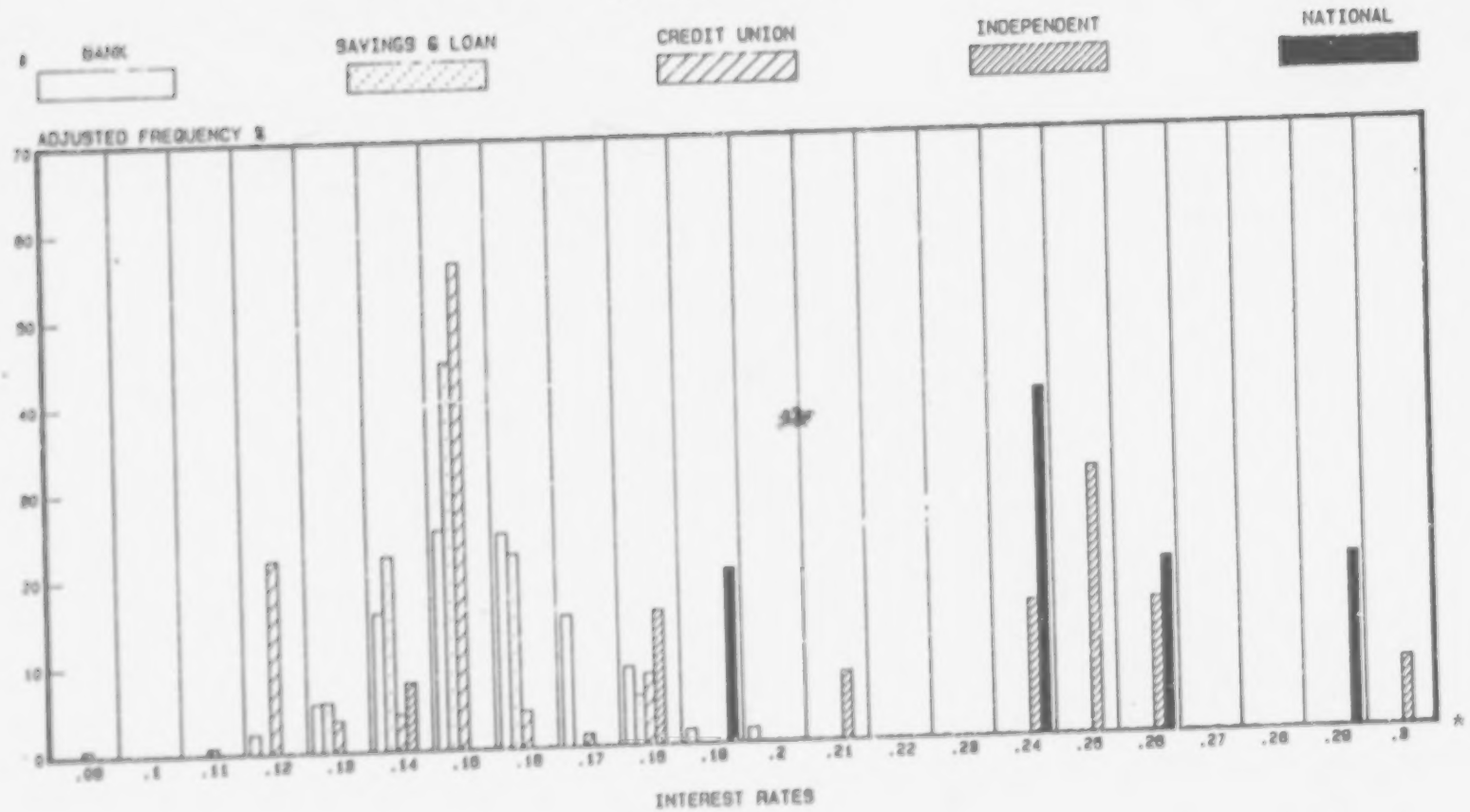
* Each segment on the horizontal axis represents 100 basis points. For example, rates that fall between .1200 and .1299 fall into the segment labeled .12.

BEST AVAILABLE COPY

CHART 7

ILLINOIS

OLD USED AUTO LOAN



NUMBER OF CASES

Banks-147

Savings & Loan-18

Credit Unions-173

National Finance Companies-5

Independent Finance Companies-13

* Each segment on the horizontal axis represents 100 basis points. For example, rates that fell between .1200 and .1299 fall into the segment labeled .12.

BEST AVAILABLE COPY

middle range and finance companies occupied the high end of the continuum. A few independent finance companies charged rates similar to those of banks, savings and loans and credit unions. And some commercial banks seemed to be easing into the high risk end of the continuum with rates above 18 percent.

In Arizona, commercial banks offered the lowest most likely rates available for older model used cars and national finance companies offered the highest rates (Chart 8). The bulk of rates fell between 15 percent and 17.9 percent. Rates for loans from S&Ls and some banks were competitive with rates from finance companies. Although the distribution was relatively narrow most likely rates still ranged from 14 percent to 24 percent. The level of rates charged on credit contracts from used car dealers in Arizona has received some attention and has been used to argue for the reimposition of a rate ceiling. The data in Chart 8 show that consumers who are nondepositors at banks have many alternative sources of credit when financing the purchase of a used auto in addition to the used car dealer.

Summary. The markets for new and used automobile loans are some of the more competitive segments of the consumer credit market. The data presented with regard to those markets show:

(1) There was greater diversity in most likely rates in markets with no rate ceilings.

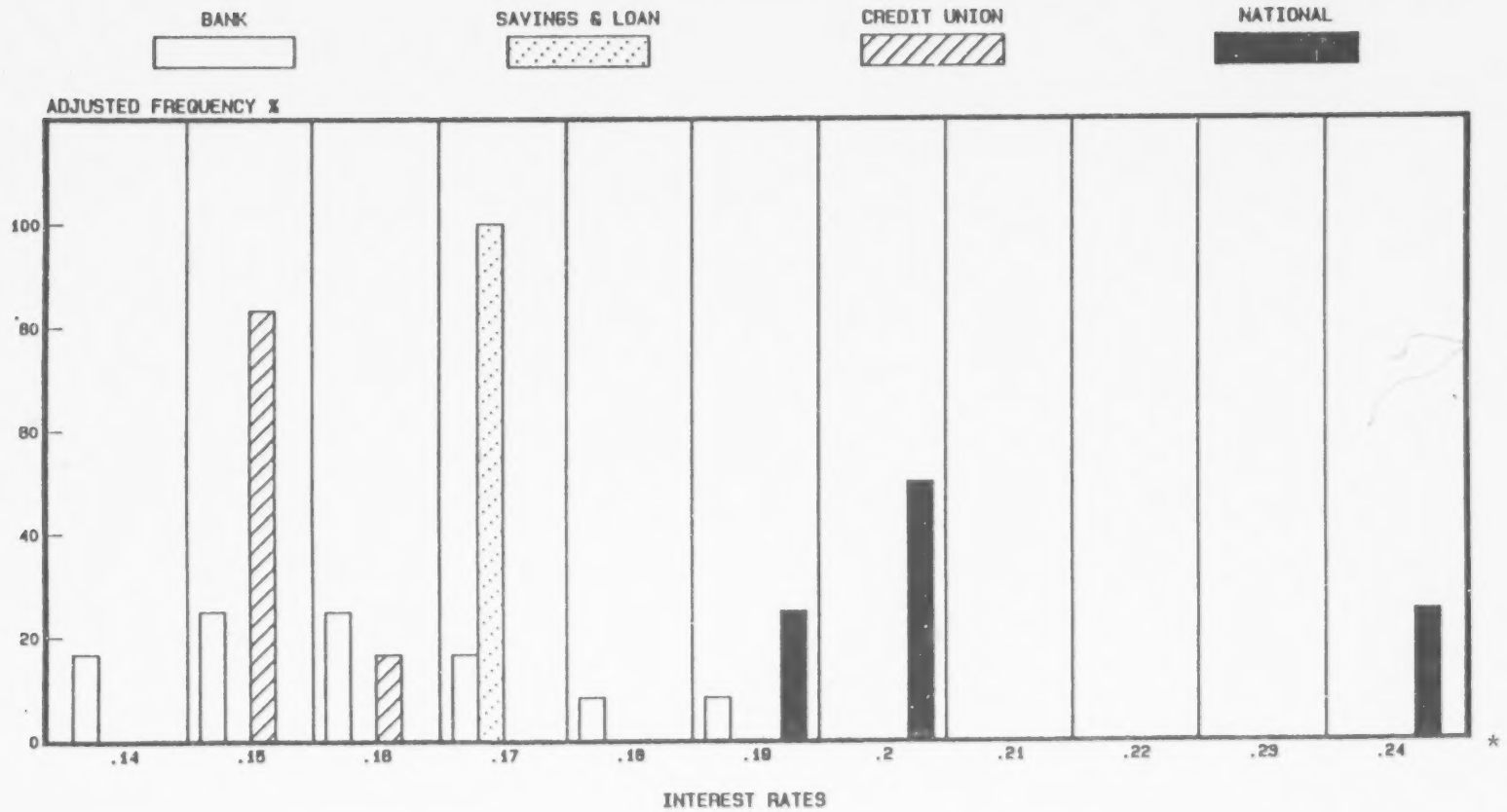
(2) The modal rates for new auto loans in markets with no rate ceilings were similar to the average rate charged by a national sample of commercial banks.

BEST AVAILABLE COPY

CHART 8

ARIZONA

OLD USED AUTO LOANS



NUMBER OF CASES

Banks-12 Credit Unions-6

Savings & Loan-2 National Finance Companies-4

* Each segment on the horizontal axis represents 100 basis points. For example, rates that fell between .1200 and .1299 fall into the segment labeled .12.

(3) The modal most likely rate charged by credit unions, commercial banks and savings and loan associations for various types of auto loans was consistently lower than the modal rate charged by finance companies.

(4) The level and diversity of rates appears in part to be a function of the concentration of banking in a market. In general, rates on auto loans in Arizona were higher than rates for similar loans in Illinois. The range of rates in Arizona was more narrow then the range for similar loans in Illinois.

(5) The modal "most likely" rates charged by each lender for various types of auto loans were logically related to the risk and size characteristics of the loan. In other words, new car loans were less expensive than late model used car loans, which in turn were less expensive than older model used car loans. These rate differentials reflect competitive behavior that causes the price of credit to reflect the risk and administrative costs of the contract rather than some arbitrary pricing rules of lenders.

B. Unsecured Personal Loans

Unsecured personal loans do not represent a large percentage of total credit outstanding relative to auto credit or revolving credit. With the change in the federal bankruptcy law, the availability of unsecured personal loans has been restricted as creditors replaced unsecured credit with second mortgage loans. In addition, because of the unsecured nature and small dollar denomination of these loans, rates

are considerably higher than rates on new auto loans. We did not ask specific questions about the availability of unsecured personal loans but one might expect them to be made to the more creditworthy of credit customers generally.

According to data released by the Federal Reserve System, the average most likely rate charged in February by commercial banks on unsecured personal loans with maturity of 24-months was 17.59 percent.[18] Another publication of regional bank loan rates, effective February 1983, showed a range of rates from 14.50 percent to 20 percent for unsecured personal loans maturing in 24 to 48 months.[19]

Commercial Banks. The modal most likely rate charged by commercial banks in Illinois to nondepositors for cash loans of $1000 with maturity of 12 months was 15 percent with rates in the previous 30 days ranging from 11 percent to 22 percent (Exhibit 6). The modal rate for the larger, longer-termed unsecured loans were the same or slightly higher but with similar ranges of available rates.

In Arizona, modal rates for unsecured personal loans from banks were generally higher than those in Illinois by 100 to 300 basis points. Again, the range of available rates was narrower with the low rate in Arizona being above the low for Illinois, but the high rate in Arizona was below the high rate in Illinois.

Credit Unions. The modal most likely rate charged by credit unions in Illinois for all types of unsecured personal loans was 15 percent. The range of rates for each loan type was also identical with rates falling between eight percent and 18 percent. In Arizona, the modal rate for unsecured personal loans from credit unions was 18.00 percent with available rates ranging from 12 percent to 18 percent.

EXHIBIT 6: ANNUAL PERCENTAGE RATES FOR UNSECURED PERSONAL LOANS (UNWEIGHTED RATES)**

Loan Type		Banks		Credit Unions		Savings and Loans		National Finance Companies		Independent Finance Companies	
		Illinois	Arizona	Illinois	Arizona	Illinois	Arizona	Illinois	Arizona	Illinois	Arizona*
$1000 balance, 12-month maturity to nondepositors	Mode	15.00	18.00			16.00	17.50	24.00	28.50	36.00	
	N	164	12			17	-	16	13	18	
	High	22.00	20.00			24.00	17.50	36.00	36.00	48.00	
	Low	11.00	15.50			12.50	17.50	18.00	18.00	18.00	
$1000 balance, 12-month maturity to depositors	Mode			15.00	18.00						
	N			188	7						
	High			18.00	18.00						
	Low			8.00	12.00						
$2000 balance, 24-month maturity to nondepositors	Mode	15.00	17.00			16.00	17.50	22.27	23.00	27.00	
	N	149	12			17	-	16	13	15	
	High	21.57	20.00			24.00	17.50	33.75	33.75	35.00	
	Low	11.00	16.00			14.00	17.50	18.00	18.00	20.00	
$2000 balance, 24-month maturity to depositors	Mode			15.00	18.00						
	N			129	6						
	High	.	.	18.00	18.00						
	Low			9.00	12.00						
$4000 balance, 36-month maturity to nondepositors	Mode	16.00	17.00			16.00	17.50	24.00	19.50	25.00	
	N	128	10			11	-	16	10	8	
	High	21.21	19.00			19.00	17.50	29.41	29.41	30.00	
	Low	11.00	14.50			14.00	17.50	18.00	18.00	18.00	
$4000 balance, 36-month maturity to depositors	Mode		.	15.00	18.00						
	N			83	5						
	High	.	.	18.00	18.00						
	Low	.		9.00	15.00						

*No independent consumer finance companies from Arizona responded.

**Mode of most likely rate during week of March 28 - April 2, 1983; High is highest rate and low is lowest rate offered by the respondent group for that loan type in the previous 30 days.

Savings and Loan Associations. These lenders were positioned in the market for unsecured personal loans to compete with commercial banks and credit unions rather than consumer finance companies. The modal rates offered by S&Ls were higher than those offered by banks in Illinois for the two smaller-sized unsecured loans and the ranges of rates offered by S&Ls were broader than those of banks for similar loans. The rate charged by S&Ls making unsecured personal loans in Arizona fell between those charged by banks and credit unions.

Consumer Finance Companies. The rates charged for unsecured personal loans by finance companies in both states were considerably higher than those charged by other lenders. The modal most likely rates for such loans from national finance companies in Illinois ranged from 22 percent to 24 percent and 25 percent to 36 percent for the independent companies in Illinois. The range of available rates during the previous 30 days went from 18 percent up to 36 percent for national companies and from 18 percent up to 48 percent for independent companies in Illinois.

The modal most likely rate offered by finance companies in Arizona was higher than the modal rate in Illinois for the smallest sized loan (28.50 percent vs. 24.0 percent) but lower for the largest sized loan (19.5 percent vs. 24.0 percent). The ranges of rates offered by national companies in the two states were exactly the same.

The Market. Unlike secured auto loans, where the risk of the loan is limited by the quality of the collateral, the risk of unsecured personal loans is solely a function of the creditworthiness of the borrower. Consequently, it is not surprising to find a wider spread

in available rates in that market. In fact, the spread of available rates in a state is probably indicative of the availability of unsecured personal loans for consumers in higher credit risk groups. The distributions of most likely rates from all competitors provide an overview of the market for unsecured personal loans in the two states (Charts 9 through 14).

In Illinois, most likely rates for unsecured personal loans clustered in the range of 14 percent to 18.99 percent. Rates for similar loans in Arizona clustered from 15 percent to 18.99 percent. In both states the rates compare favorably with available national statistics on rates for unsecured personal loans.

In both states, a rather distinct segmentation of most likely rates charged by banks, credit unions and savings and loan associations and rates charged by national and independent finance companies is apparent. Only for the largest size loan was there any significant overlap of rates offered by banks and finance companies in Arizona. In Illinois, a few finance companies offered rates that were competitive with those offered by the depository institutions and vice versa for unsecured personal loans.

Several observations concerning the amount of competition in the market for unsecured personal loans in Illinois can be made from this overview of the market.

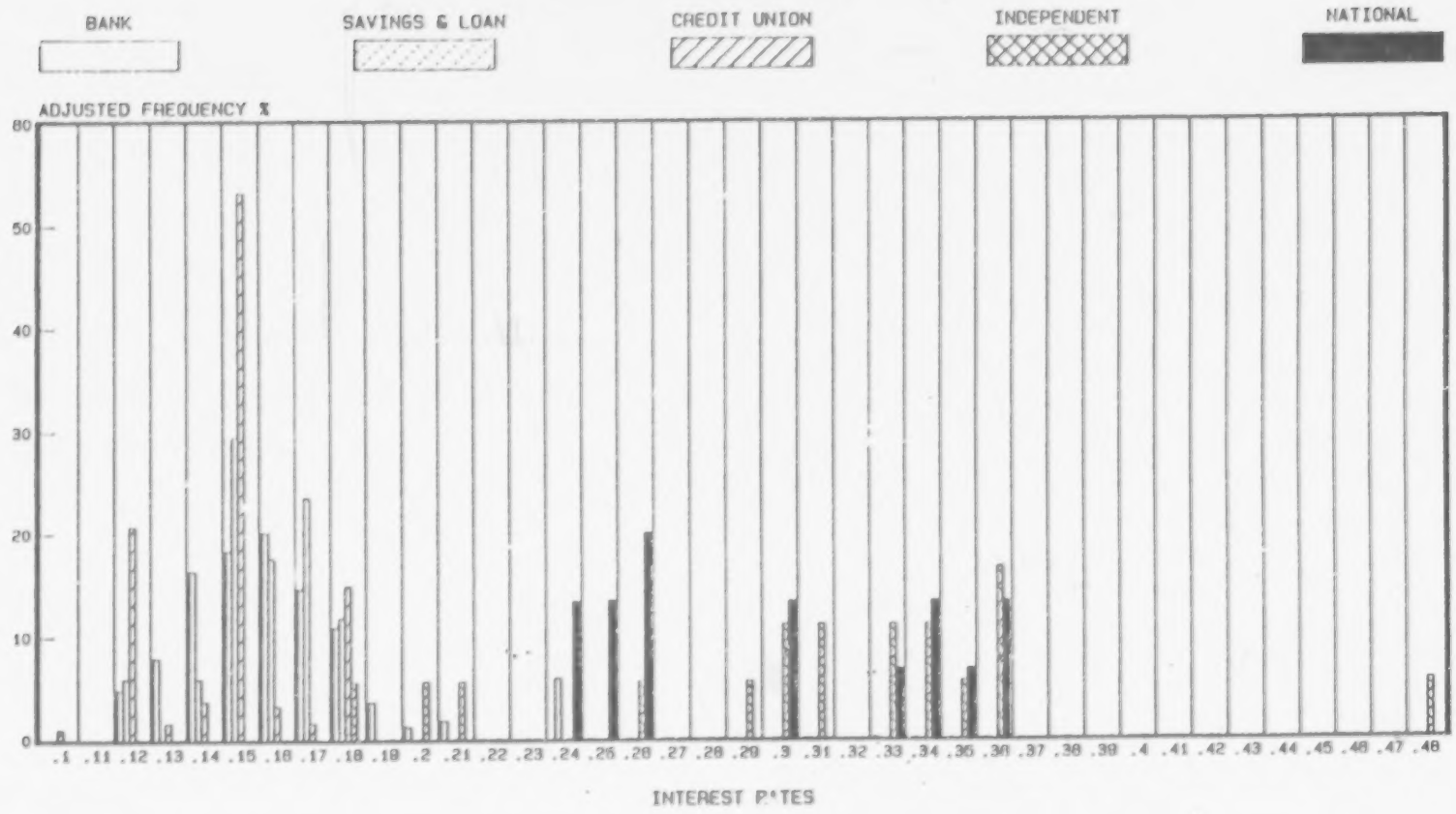
(1) There is considerable price competition among depository institutions and among finance companies.

(2) There is great diversity among finance companies in terms of positioning in an unregulated market for unsecured personal loans.

CHART 9

ILLINOIS

UNSECURED PERSONAL LOANS-$1,000 FOR 12 MONTHS



NUMBER OF CASES

Banks-164

Savings & Loan-17

Credit Unions-188

National Finance Companies-15

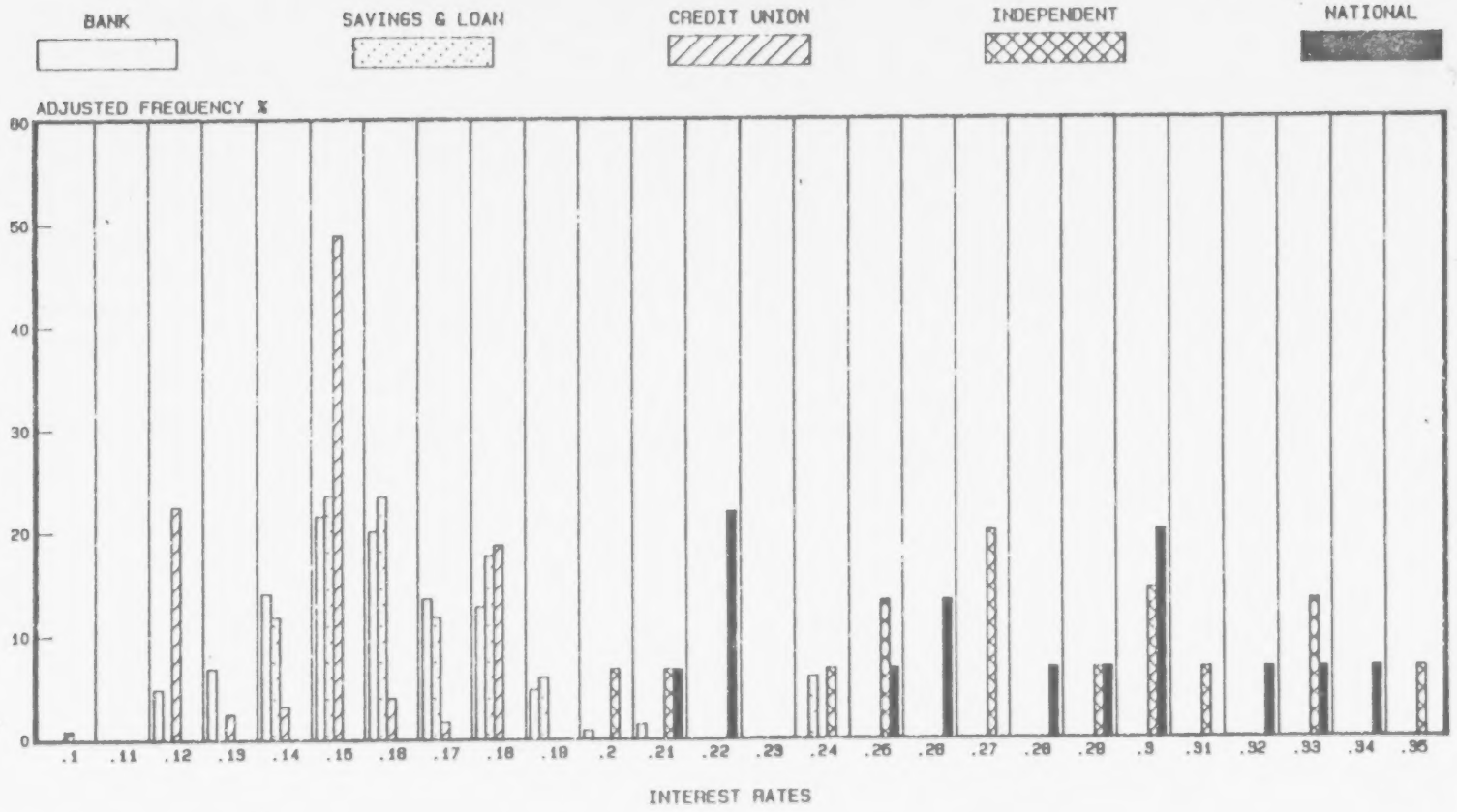
Independent Finance Companies-18

BEST AVAILABLE COPY

CHART TO

ILLINOIS

UNSECURED PERSONAL LOANS-$2,000 FOR 24 MONTHS



NUMBER OF CASES

Banks-149

Savings & Loan-17

Credit Unions-129

National Finance Companies-15

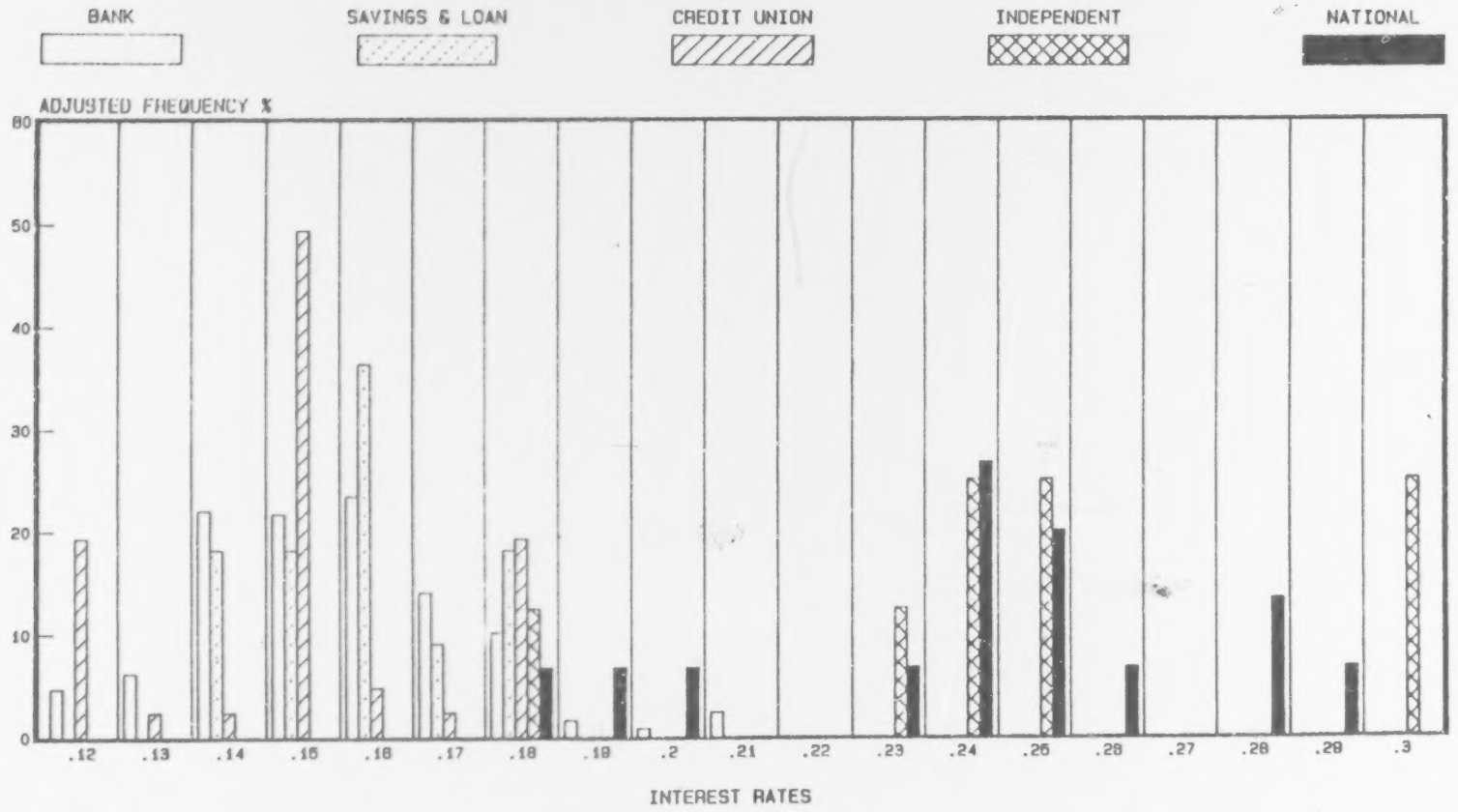
Independent Finance Companies-15

BEST AVAILABLE COPY

CHART 11

ILLINOIS

UNSECURED PERSONAL LOANS-$4,000 FOR 36 MONTHS



NUMBER OF CASES

Banks-128

Savings & Loans-11

Credit Unions-83

National Finance Companies-15

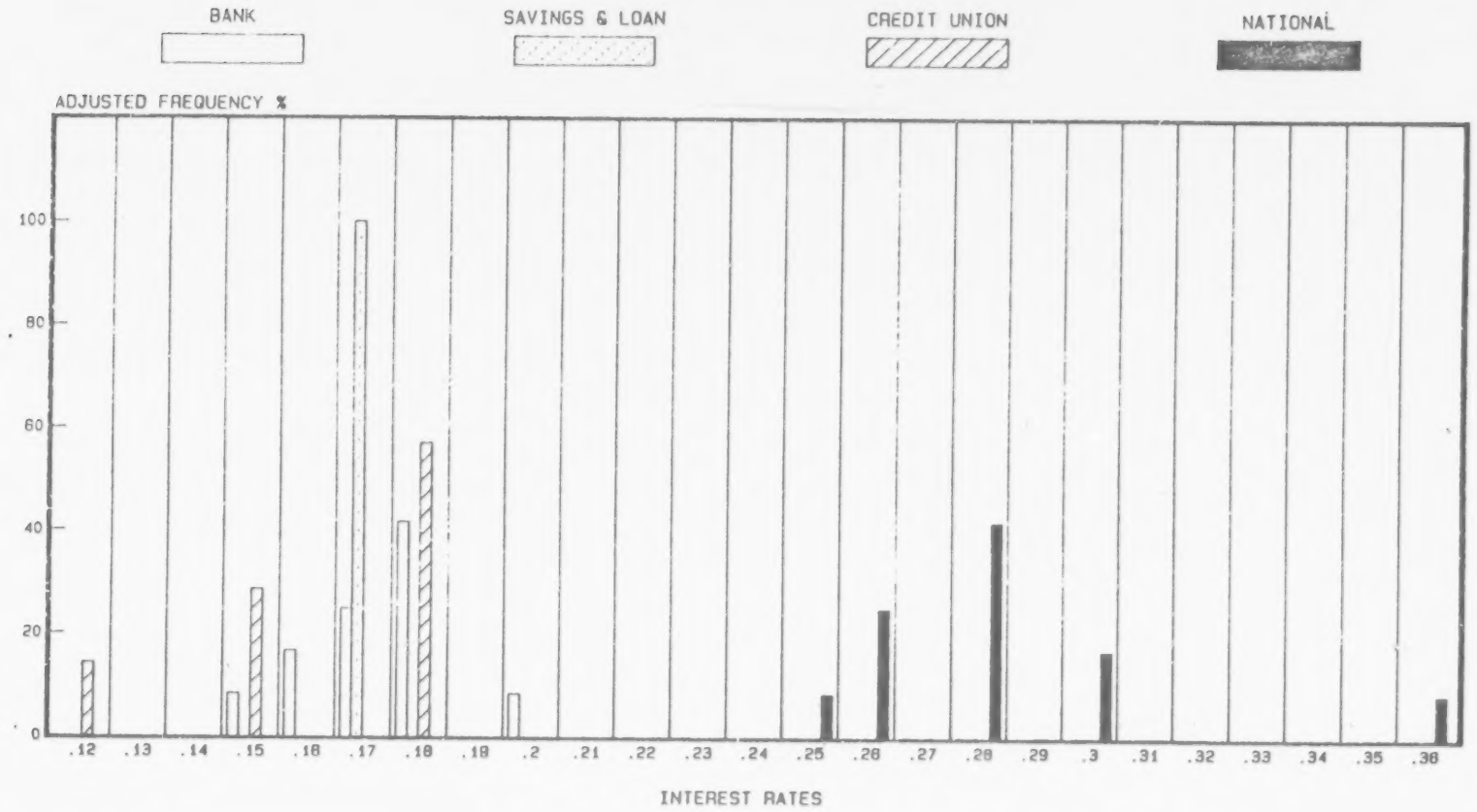
Independent Finance Companies-8

BEST AVAILABLE COPY

CHART 12

ARIZONA

UNSECURED PERSONAL LOANS-$1,000 FOR 12 MONTHS



NUMBER OF CASES

Banks-12

Savings & Loan-1

Credit Unions-7

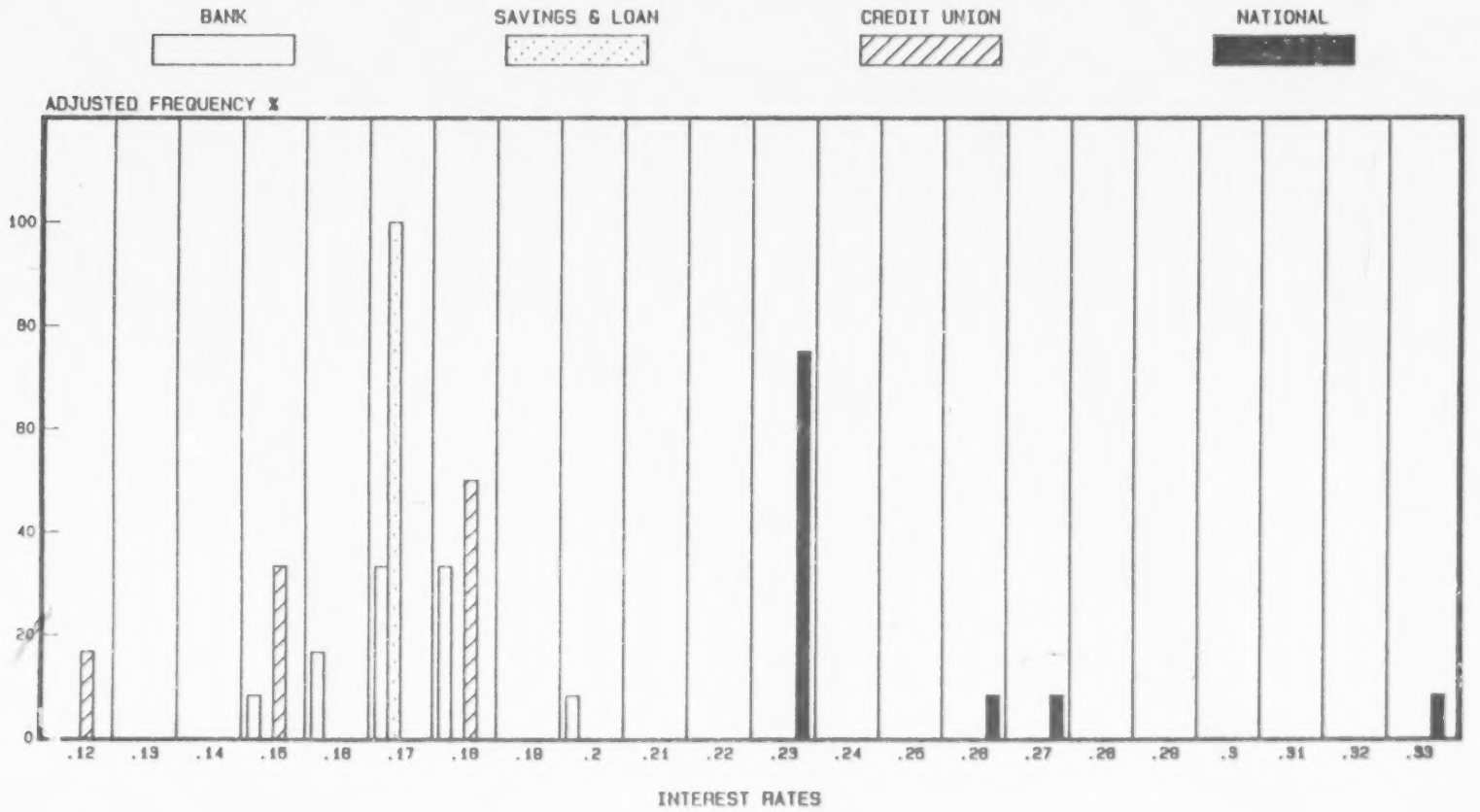
National Finance Companies-12

BEST AVAILABLE COPY

CHART 13

ARIZONA

UNSECURED PERSONAL LOANS-$2,000 FOR 24 MONTHS



NUMBER OF CASES

Banks-7

Savings & Loan-1

Credit Unions-6

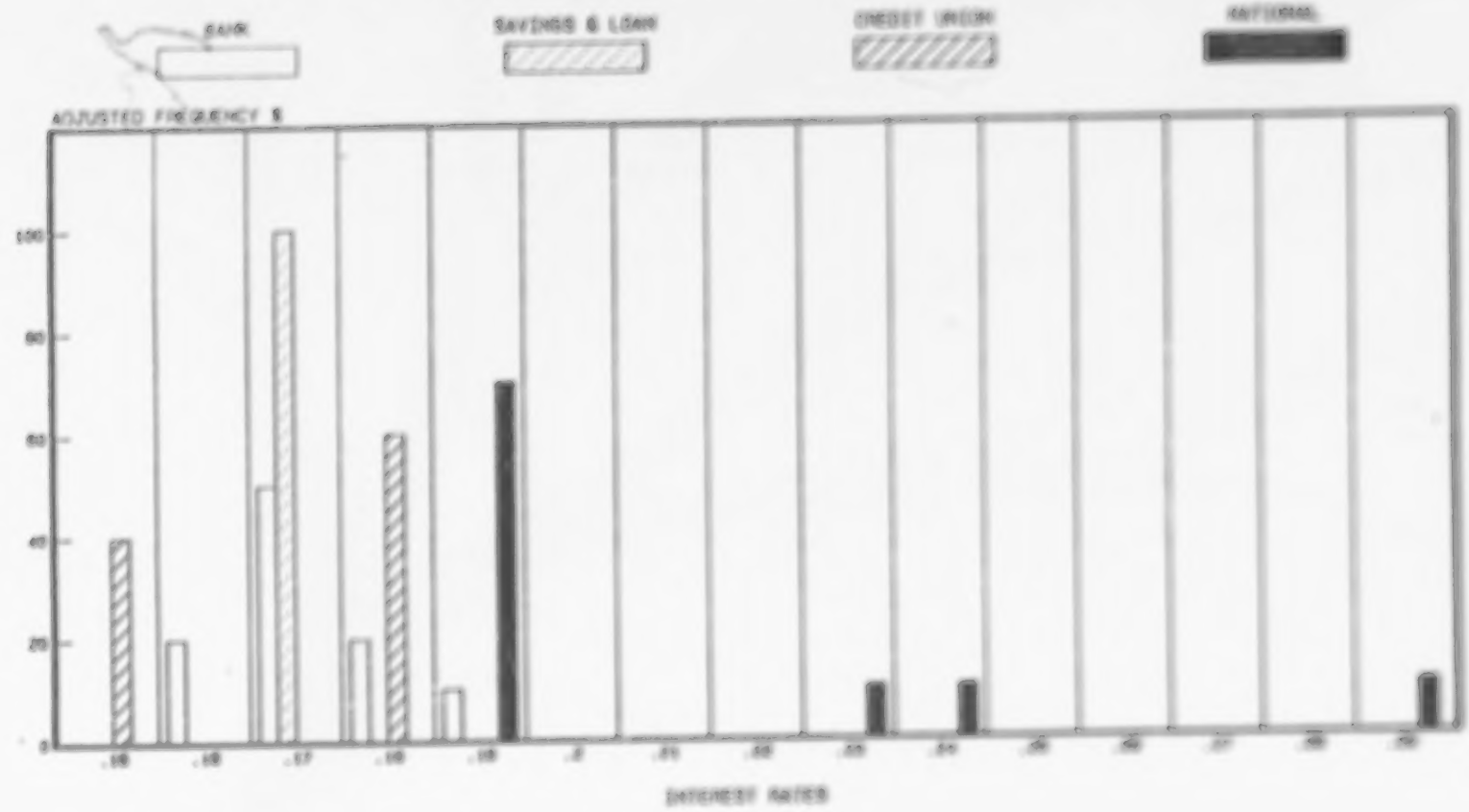
National Finance Companies-12

BEST AVAILABLE COPY

CHART 14

ARIZONA

UNSECURED PERSONAL LOANS-$4,000 FOR 36 MONTHS



NUMBER OF CASES

Banks-10

Savings & Loan-1

Credit Unions-5

National Finance Companies-10

BEST AVAILABLE COPY

(3) The most likely rates offered by depository institutions in Illinois for unsecured loans maturing in 24-months were lower than those reported in a national survey of commercial banks for the period of the first week of February. This may be attributed in part to the general decline in interest rates that took place between the first of February 1983, and the end of March when these data were collected.

In Arizona, there was a broad range of most likely rates for unsecured credit but a tight clustering of rates by type of creditor. This pattern may be attributable to the smaller number of competitors in that state. However, the modal most likely rates available for unsecured personal loans from banks were also similar to the average found in the national survey of banks performed in February 1983. There was a rather sharp distinction between rates offered by depository institutions and rates offered by finance companies. The range of ten percentage points in most likely rates offered by national finance companies suggests the diversity of strategies for market position which have been adopted by these lenders.[20]

We conclude that there is a high level of price competition in the Arizona market and a broad range of available rates. Although the market may be more concentrated than that in Illinois, all financial institutions do not follow the same pricing strategy nor do most likely rates differ excessively from national norms. Rather, in their attempt to gain a particular market share or market segment, various creditors offer many different prices for unsecured personal loans.

C. Second Mortgage Loans

In the last five years, second mortgage loans have become an important source of credit for consumer purposes. Because of a rapid rate of inflation in the value of real estate many households had large accumulations of wealth in the form of equity in their family residence. Second mortgage loans were a method used to access that wealth. In addition, with the 1978 Bankruptcy Reform Act, lenders were no longer as willing to make unsecured personal loans but required borrowers to use household equity as collateral. Consequently, the rates charged on second mortgage loans represent the cost of one of the more important sources of consumer credit from banks, finance companies, S&Ls and credit unions.

A benchmark rate for second mortgage loans from a national sample of lenders was not available. A regional survey of rates for various types of consumer loans showed that as of the end of February 1983 available rates for a 60-month second mortgage loan from commercial banks ranged between 15.75 percent and 17.00 percent.[21]

In states where it is legal, lenders who make second mortgage loans may charge points in addition to the stated rate. The percentage of respondents making second mortgage loans who charged points on the loan ranged between 7.4 percent of credit unions to 59.3 percent of national finance companies (Exhibit 7).

To obtain distributions of most likely rates (APR) on second mortgage loans we first recalculated the "most likely" annual percentage rates for those lenders who charged points to reflect the "most likely" number of points charged. The statistics for the distributions of "most

EXHIBIT 7

SECOND MORTGAGE LOANS

	Makes Second Mortgage Loans	Charges Points *	Makes Second Mortgage Loans At Variable Rates
Commercial banks (both states) N = 247	67.21%	30.72%	3.61%
Savings and loan N = 44	84.09	54.05	13.51
Credit union N = 231	11.69	7.41	3.70
National finance companies N = 32	84.38	59.26	-
Independent finance companies N = 20	80.00%	25.00%	-

*Percent making second mortgage loans who also charged points.

likely" APRs charged by lenders who charged no points, by those who charged points, and overall statistics are shown in Exhibit 8.

An example of the recalculation follows: For a $10,000 second mortgage loan with maturity of 60-months assume the stated APR on the loan was 12 percent and two points were charged. We first calculated the size of monthly payment required to retire the $10,000 loan with APR of 12 percent or one percent per month in 60 months:

$$\$10{,}000 = x(\text{PVAF}, 1\%, 60 \text{ months})$$

$$x = \$222.44 \text{ monthly payment}$$

Then we solved for the adjusted APR which reflected the fact that two percent of the face value of the loan was paid when the loan was extended:

$$\$10{,}000 - .02(10000) = 222.44\ (\text{PVAF}, x, 60)$$

$$9800 = 222.44\ (\text{PVAF}, x, 60)$$

$x = 44.057$ represents a rate of 1.074% per month or 12.89% adjusted APR

Commercial Banks. About two-thirds of the responding banks in the two states made second mortgage loans like the one described in the questionnaire (balance equal to $10,000, 5-year maturity, with loan-to-value no greater than 75 percent). Only about 30 percent of banks making second mortgage loans in Illinois reported that points were charged. Almost half of banks making such loans in Arizona assessed points for second mortgage loans.

EXHIBIT 8: MOST LIKELY ANNUAL PERCENTAGE RATES ON SECOND MORTGAGE LOANS*

	Commercial Banks		Savings and Loan Associations		Credit Unions		Independent Finance Company		National Finance Company	
	Illinois	Arizona	Illinois	Arizona	Illinois	Arizona	Illinois	Arizona	Illinois	Arizona
Those who charged NO points										
Mode	14.00%	17.00%	16.00%	15.50%	15.00%	15.00%	22.00%	-	19.00%	19.00%
N	110	7	16	1	20	5	12	-	6	5
Low	12.00	14.25	11.50	15.50	12.00	15.00	14.99	-	18.30	17.00
High	20.31	17.00	17.50	15.50	18.00	16.00	24.00	-	21.00	19.80
								-		
Those who charged points										
Mode	14.40	15.96	16.44	16.92	14.16		22.44	-	20.40	15.89
N	45	6	19	1	2	0	4	-	8	8
Low	12.84	14.64	13.44	16.92	14.16		19.44	-	16.08	15.89
High	21.24	18.72	18.96	16.92	15.84		22.44	-	21.96	24.00
								-		
Overall distribution										
Mode	14.00	15.96	16.00	15.50	15.00	15.00	22.00	-	19.00	19.00
N	155	13	35	2	22	5	16	-	14	13
Low	12.00	14.25	11.50	15.50	12.00	15.00	14.99	-	16.08	15.89
High	21.24	18.72	18.96	16.92	18.00	16.00	24.00	-	21.96	24.00
				-				-		

*The low and high rates shown in this exhibit are the lowest and highest of the reported most likely rates rather than the group minimum and maximum rates for the 30 days before the survey.

The modal "most likely" rate charged by banks in Illinois that did not charge points was 14.00 percent while the modal adjusted APR for those who charged points was 14.40 percent. For the total sample of banks, most likely rates ranged from 12 percent to 21.24 percent with a mode of 14.00 percent.

The mode of the distribution of rates from banks in Arizona that charged no points was 17.00 percent while the mode for those that charged points was 15.96 percent. The mode rate for all responding banks in Arizona (15.96 percent) was higher than that in Illinois for second mortgage loans.

Savings and Loan Associations. Almost 84 percent of S&Ls that responded to the survey offered second mortgage loans and 54 percent of those charged points. The modal rates for S&Ls in Illinois were considerably higher than those charged by banks. In Arizona, only two S&Ls made second mortgage loans and the rates charged were not unlike those charged by banks.

Credit Unions. Just slightly more than one-tenth of the credit unions that participated in our study made second mortgage loans and few credit unions charged points on these loans. The modal most likely rates charged by credit unions in the two states were equal at 15.00 percent.

National Finance Companies. A higher proportion of participating national finance companies made second mortgage loans, relative to other types of lenders, and national finance companies were the most likely of all the lender types to charge points on those loans. The modal most likely rate charged by finance companies that charged no points in Illinois

was 500 basis points above the mode for bank loans. The mode for those finance companies that charged points was 600 basis points above that for commercial banks that charged points in Illinois. The modal rates for national finance companies were identical in the two states and considerably above the mode for bank loans in both states.

Independent Finance Companies. The independent finance companies making second mortgage loans generally did not charge points but offered second mortgage loans at a wide range of rates (14.99 percent to 24.00 percent). The modal rates for independent finance companies in Illinois was the highest of all the lenders at 22.00 percent.

The Market. In both Illinois and Arizona, the bulk of most likely rates for second mortgage loans fell between 15.0 and 15.9 percent (Charts 15 and 16). Most likely rates ranged from 11 percent to 24 percent in Illinois and from 14 percent to 24 percent in Arizona. In Illinois, there was considerable segmentation of rates offered by financial institutions versus finance companies, although some independent finance companies offered rates that were competitive with those offered by banks, savings and loans and credit unions. There was relatively more overlap in the rates offered by banks and finance companies for second mortgage loans in Arizona. In fact, some of the national finance companies were providing serious price competition to banks for these loans.

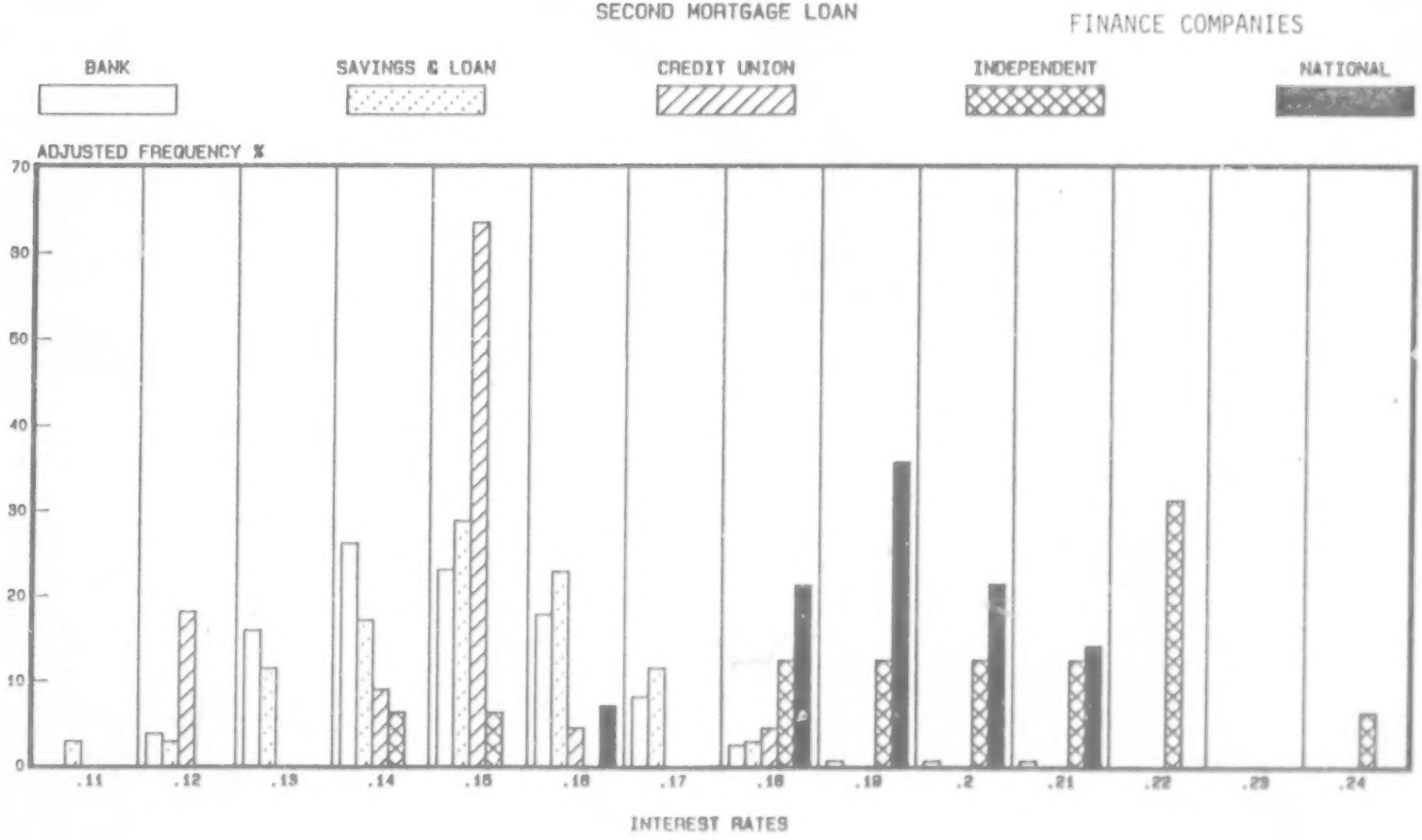
D. Revolving Credit

Bank Credit Cards. Revolving credit on bank credit cards has grown very rapidly in the last 15 years. As this type of credit grew in share of total credit outstanding, retail revolving credit and unsecured

CHART 15

ILLINOIS

SECOND MORTGAGE LOAN



NUMBER OF CASES

Banks-155

Savings & Loan-35

Credit Unions-22

National Finance Companies-14

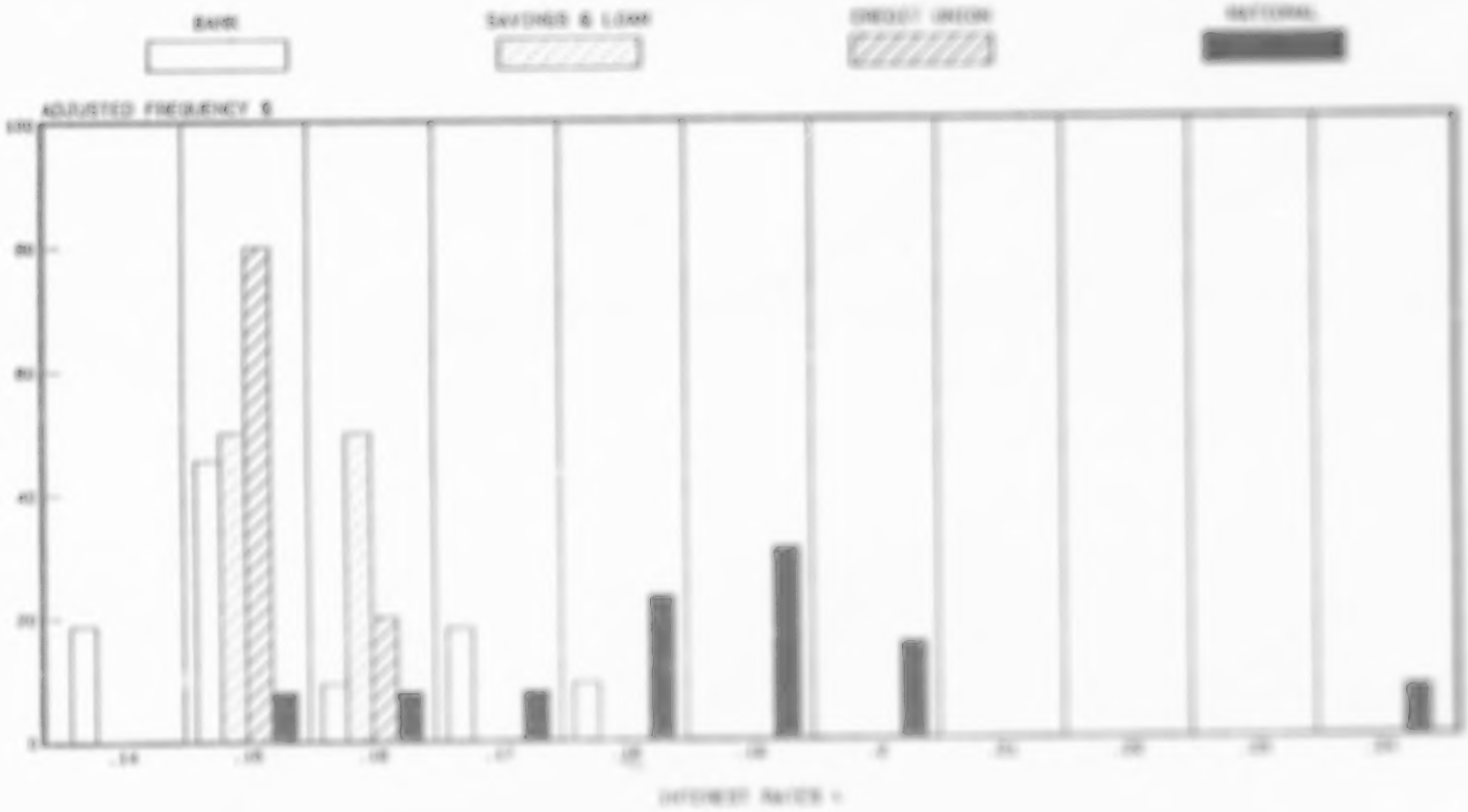
Independent Finance Companies-16

BEST AVAILABLE COPY

CHART 16

ARIZONA

SECOND MORTGAGE LOAN



NUMBER OF CASES

Banks=11

Savings & Loan=2

Credit Unions=3

National Finance Companies=13

BEST AVAILABLE COPY

personal loans from finance companies declined. Commercial banks are not the only type of institution offering credit card programs. In this study, credit unions and savings and loan associations also offered their retail customers one of the national credit cards.

Credit card pricing practices have undergone dramatic changes in the last several years. Many of the changes, most notably the annual fee, were initiated by commercial banks in 1980 with the ill-conceived attempt by the federal government to limit consumers' use of revolving credit. The imposition of an annual fee is not universal--some banks are charging interest from the date of purchase (no "free" period) or have a minimum deposit requirement.

The Federal Reserve reported that the average "most likely" rate charged for credit cards by commercial banks during the first calendar week of February 1983 was 18.82 percent. No information was reported on annual fees or transaction fees in that survey. In another survey of bank rates reported on March 2, 1983, APRs charged on bank credit card plans ranged from 15.0 percent to 21 percent and annual fees ranged from $12 to $15.[22]

The market for credit cards can be characterized as a national market. A creditor can offer credit card services to consumers anywhere in the country and export a rate which is limited by laws in the state where the card-issuer is domiciled. Citicorp, with the largest national card-holder base, charged 19.80 percent and a $15 annual fee for bank credit cards at the time of the study and issued the cards from South Dakota, a state with no rate ceiling for bank credit cards.

In our study of Illinois and Arizona, information on the annual percentage rate and annual fees were collected. Banks and S&Ls offered the MasterCard in Illinois while banks, credit unions, and S&Ls offered the Visa card in that state. Banks offered MasterCard in Arizona while banks, credit unions and S&Ls offered Visa.

Commercial Banks. The modal APR charged by banks on MasterCard and Visa in Illinois was 18.00 percent (Exhibit 9). Available rates ranged from 12.01 percent to 21.6 percent. Three banks in Illinois followed a rate structure that had a break rate. The modal annual fee for MasterCard and Visa cards was $20. In several cases, banks indicated that both cards were available for one annual fee of $20. However, if a consumer wanted just one of the cards, the annual fee was still $20. Some banks did not charge an annual fee.

In Arizona, the modal rate charged by banks was 21.00 percent on both MasterCard and Visa. Only one of the 12 responding banks that offered MasterCard charged an annual fee. Six banks offered Visa and two charged an annual fee of $15. One bank required a minimum deposit of $100.

Credit Unions. Only three responding credit unions in Illinois offered a credit card to their customers. The APRs ranged from 16.8 percent to 19.0 percent and only one charged an annual fee of $10. One credit union in Arizona offered a Visa card with a 16.80 percent rate and no annual fee.

Savings and Loan Associations. Four responding S&L's in Illinois offered credit cards. These credit cards were generally priced like those offered by commercial banks. The APRs ranged from 18 percent to 21 percent and annual fees were $15 or less for either card plan. In

EXHIBIT 9

BANKCARD PRICING

	Illinois			Arizona		
	Banks	Credit Unions	Savings And Loans	Banks	Credit Unions	Savings And Loans
MasterCard						
APR						
Mode	18.00		--	21.00	-	-
Number	44*		3	12	-	-
Minimum **	18.00		18.00	18.00	-	-
Maximum	21.60		21.00	21.00	-	-
Annual Fee						
Mode	$20.00		$15.00	0	-	-
Number	45		3	12	-	-
Minimum	0		0	0	-	-
Maximum	$20.00		$15.00	$15.00	-	-
Visa						
APR						
Mode	18.00	--	18.00	21.00	16.80	21.00
Number	43*	3	4	6	1	1
Minimum	12.00	16.80	18.00	21.00	16.80	21.00
Maximum	22.00	19.00	21.00	21.00	16.80	21.00
Annual Fee						
Mode	$20.00	0	$15.00	0	0	0
Number	43	3	3	6	1	1
Minimum	0	0	0	0	0	0
Maximum	$20.00	$10.00	$15.00	$15.00	0	0

*Three banks reported pricing structures with break rates.

**The minimum of the most likely APRs reported by the group.

Arizona, only one S&L offered a credit card--the annual percentage rate charged was 21 percent with no annual fee.

Summary. In general, there was considerable variability in credit card pricing programs across lenders in both states especially with regard to annual fees. The cards were not priced out of line with those offered by other banks located outside of the states included in the study.

Revolving Credit From Retailers. Retailers represent an important source of credit, especially for high-risk consumers who may not qualify for cash credit. Consequently, retailers may have justification for charging higher rates for revolving credit than financial institutions. However, because their credit programs must generally compete with revolving plans from financial institutions and because some of the cost of credit may be recovered in the markup of merchandise, we expected the pricing structure of retail revolving credit to be similar to that of bank credit cards. To date, however, no retailer has initiated an annual fee for a credit card.

Six retailers that were national chains with outlets in Illinois and five with outlets in Arizona participated in the study. These were typically large department stores. Six of six respondents in Illinois had their own revolving credit program. Four of the five respondents in Arizona offered their own revolving credit plans. In Illinois, the minimum rate available on these plans was 21.00 percent, and the maximum was 23.9 percent with an average rate of 21.8 percent (Exhibit 10). In Arizona, the minimum rate charged on a retail revolving credit plan was 21.00 percent with a maximum of 21.6 percent and a mean of 21.2 percent.

EXHIBIT 10

RETAIL REVOLVING CREDIT

	Illinois		Arizona	
	National Chain	Independent	National Chain	Independent
Number	6	29*	5	47***
APR on Balance				
Mean APR	21.8	18.5	21.2	20.5
Number	6	17**	4	10
Minimum	21.00	10.00	21.00	17.97
Maximum	23.94	21.60	21.60	24.92

---

*One had a plan of 18 percent up to $500 and 12 percent above $500.

**Twenty-one respondents had a revolving credit plan. Only 17 respondents reported rates.

***Three respondents had plans with break rates. Eighteen to 21 percent up to the break point, 12 percent on balances above the break.

Revolving Credit From Independent Retailers. Twenty-nine independent retailers in Illinois and 47 in Arizona participated in the study. The respondents from Illinois were generally clothing stores, or department stores. The respondents from Arizona were more diverse, including jewelers, lumber stores, furniture stores, department stores, and auto supply outlets. (One could argue that this sample is not representative of the population of merchants and dealers who serve high-risk consumers in either state because so few hard-good outlets are represented.) Of these retailers, 21 in Illinois offered revolving credit. The modal rate (APR) for those plans was 18.00 percent with rates ranging from ten percent to 21.60 percent. One retailer charged 18 percent on a balance up to $500 and 12 percent on balances above $500.

Thirteen of 47 responding independent retailers in Arizona managed their own revolving credit plan. The modal rate reported by the ten retailers reporting a straight rate on their plans was 20.48 percent with a minimum of 17.97 percent and a maximum of 24.92. Three reported a break rate ranging from 18 to 21 percent on the balance up to the breakpoint and 12 percent on the remaining balance.

Closed-end Credit Plans from Retailers. Eight participating retailers in Illinois had closed-end credit plans and 20 retailers in Arizona had such plans (Exhibit 11). The rates charged in Illinois fell between 18 percent and 21.78 percent. The rates on these contracts fell between those charged by banks and finance companies for unsecured personal loans of similar size and maturity.

The average rates for closed-end credit plans from retailers in Arizona were lower than rates for similar loans in Illinois for two types of contracts. These differences can likely be attributed to differences

EXHIBIT 11

INDEPENDENT RETAILERS

CLOSED-END RETAIL CREDIT

	Illinois*	Arizona**
$500, 12 months		
Mean	18.17	20.12
Number	7	11
Minimum	10.00	17.97
Maximum	24.60	27.99
$1500, 24 months		
Mean	21.78	19.43
Number	2	5
Minimum	18.25	12.00
Maximum	25.30	27.99
$1500, 20 months		
Mean	21.78	18.77
Number	2	5
Minimum	18.25	12.00
Maximum	25.30	24.92
$2000, 36 months		
Mean	18.00	20.58
Number	1	4
Minimum	18.00	12.00
Maximum		28.00

*Nine respondents had nonrevolving credit plans.

**Twenty respondents had nonrevolving credit plans.

in the types of retailers in the samples of the two states. In Arizona the rates from retailers ranged from 12.00 percent to 28.00 percent for $2000, 36-month contracts.

E. Conclusions

The distributions of "most likely" rates charged for various types of consumer credit in two states with no rate ceilings show that the level of rates was not inconsistent with the prevailing level of rates in the economy although rates appear to be generally higher in Arizona than in Illinois. In both states, the ranges of rates charged by financial institutions to nondepositors for various types of loans were surprisingly broad, reflecting the different types of lenders making up the market and different strategies for competing in the market. Generally, rates charged by banks, credit unions and savings and loan associations were lower than those charged by independent and national finance companies who have historically served the high-risk segment of the market.

The level of rates (APR) charged on bank credit cards was consistent with that of rates for similar plans offered by lenders from other states and prevailing rates in the economy. There was quite a diversity in the assessment of fees, the level of fees and other pricing practices for bank credit cards. Rates for closed-end credit from retailers were generally higher than rates on similar sized cash loans from banks, but lower than rates from finance companies.

II. EVIDENCE OF THE RELATIONSHIP BETWEEN BANK STRUCTURE AND RATES FOR CONSUMER CREDIT

The distributions of rates for various types of consumer loans show that generally rates were higher in Arizona than in Illinois. In this section, we analyze factors related to the structure of banking in each state to gain a better understanding of the relationship between those factors and rates for consumer credit. The factors analyzed were concentration of banking and size of the consumer credit function at the respondent banks.

Although there are many nonbank competitors in the consumer credit market, banks hold the largest share of outstandings. Banks' incentive to compete for retail customers is influenced by the structure of the market served. Greer and Nagata [2] found that the average rate for new auto loans in a state was consistently and significantly related to a measure of bank concentration in that state. The higher the four-firm concentration ratio, the higher the average rate charged by commercial banks in the state. In a study which measured concentration at a local market level, prices of retail banking products were lower in markets that were not highly concentrated relative to those that were more concentrated [3]. The evidence of interindustry competition presented in [4] suggests that bank rates are not a function of the number of consumer finance companies, credit unions or savings and loan associations in a local market. However, there was evidence that the number of banks in a market had a significant negative influence on the level of rates offered by nonbank competitors [4].

A. Concentration and Bank Loan Rates

Restrictions on branch banking in Illinois allows the perpetuation of about 1200 banks and created a very low concentration of bank assets in that state. The statewide branching law in Arizona has fostered a banking structure that is extremely concentrated.[23] Although there may be other differences in market conditions in the two states that could influence the level of interest rates for consumer credit, we concentrated on the effect of the different banking structures in the two states. The rate of growth in population was extremely different in two states but there was no indication that the flow of funds into Arizona had been impeded. Also, banks' cost of funds may be different across the two states although the savings market is a national one where interregional differences in rates paid on savings should be small.

The mean most likely rates charged by banks for each of eight types of consumer loans (three auto loans, three unsecured personal loans, two revolving credit accounts) in the two states are shown below. The means were significantly different for five of eight types of credit.

Loan Type	Illinois	Arizona	t-value
New auto	14.06	15.80	4.23*
Late model used auto	15.12	16.09	2.32*
Older model used auto	15.96	16.21	.51
$1000, 12-month unsecured	15.92	17.44	2.62*
$2000, 24-month unsecured	16.02	17.36	2.43*
$4000, 36-month unsecured	15.92	17.25	2.24*
Visa	19.98	21.00	.99
MasterCard	19.87	20.25	1.04

*Significant at the five percent level.

For every type of bank credit analyzed, with the exception of older model used cars and credit cards, average rates in Arizona were significantly higher than rates for similar loans in Illinois. The unweighted average significant difference in rates on bank loans in the two states was 138 basis points with the largest difference occurring for new auto loans. The average most likely rate for new auto loans was 174 basis points higher in Arizona than in Illinois.[24] Note that the average rate for new auto loans in Illinois was 14.06 compared to our estimated benchmark of 14.02 percent.

The relationship between loan rates and bank structure in a state is consistent with those documented in earlier studies. Generally, greater concentration of banking in a state has been associated with higher average loan rates. The explanation of this phenomenon is that in a concentrated market a few banks have a great deal of market power and can charge higher loan rates thus driving up the average rate charged. However, we have evidence that raises some questions about that explanation.

B. Rates and Size of Consumer Loan Portfolio

In this study we measured bank size by the dollar value of consumer credit outstanding as of December 1982. This measure of size is appropriate if banks generally operate each loan function as a profit center. The distribution of respondent banks by size in the two states showed that there was a larger percentage of banks with relatively small consumer credit portfolios in Illinois than in Arizona.

Dollar Value Of Consumer Loans	Arizona	Illinois
Less than $1 million	8%	14%
$1 - 9.9 million	33	66
$10 - 80 million	25	18
$80.1 - 999 million	25	2
$1 billion or more	8	--
	100%	100%

The average rates charged to nondepositors for six types of consumer loans were calculated for the banks in each state grouped into four size categories. (There was only one respondent bank in each state with more than $1 billion in consumer loans. To protect the confidentiality of data provided by these banks, the largest-size group in each state contains all banks with consumer loans totaling more than $80 million.) These data are shown below:

Average Rates Charged By Illinois Banks

	Consumer Loan Portfolio (millions)			
	<1 million	1-10	10.1-80	>80
New car ≥ 48 months	14.6	14.00	13.7	14.6
Late model used car > 42-48 months	15.0	15.2	14.7	16.7
Older model used car ≥ 36 months	15.4	16.1	15.8	16.5
Unsecured personal loans:				
$1000, 12-month	14.7	16.0	16.4	16.8
$2000, 24-month	14.6	16.1	16.4	16.8
$4000, 36-month	14.7	16.1	16.2	16.8
Average difference between rates for group relative to rates for > 80 group (basis points)	-153	-53	-83	0

Average Rates Charged By Arizona Banks

	Consumer Loan Portfolio (millions)			
	<1 million	1-10	10.1-80	>80
New car loan ≥ 48 months	15.0	15.5	15.5	16.2
Late model used car > 42-48 months	15.0	16.1	16.0	16.2
Older model used car ≥ 36 months	15.0	16.2	16.5	16.2
Unsecured personal loans:				
$1000, 12-month	17.0	17.9	18.0	16.9
$2000, 24-month	17.0	17.6	18.0	16.9
$4000, 36-month	17.0	17.5	17.5	17.0
Average difference between rates for banks in Arizona vs. Illinois (basis points)	+117	+122	+138	+20
Average difference between rates for group relative to rates for > 80 group (basis points)	-57	+23	+35	0

On average, rates were higher in Arizona than in Illinois for all size categories of banks. However, the difference in average rates between the two states was smallest for the banks in the largest size category. (The greatest difference in rates from the two groups of largest banks occurred for loans for new autos.) This result suggests that the differences in average rates charged by banks in the two states is not driven by differences in the behavior of the largest banks in each state. Even though the Arizona market is extremely concentrated, a high level of price competition among the major banks in that market may keep rates charged by the banks with the greatest share of the market in line with those charged by banks in less concentrated markets.

The variance in average rates across the size categories of banks in each state show interesting differences in the intrabank competition within each state. In Illinois, all the group average rates were lower than the average rate for the largest size category. The rates from the smallest sized banks showed the greatest deviation from the rates charged by the largest banks. The average rates charged by the groups of small banks and largest banks were significantly different for all the types of loans except new auto.

In Arizona, only the banks in the smallest size category charged rates lower than those charged by the banks holding the largest portfolios of consumer credit. The banks in the two middle-sized categories charged average rates that were higher than the average rates charged by the largest banks by approximately 30 basis points.

The different pricing strategies followed by the medium-sized banks in the two states may explain the differences in average rates. However, it is difficult to devise a scenario that explains the differences in behavior. Benston showed that average operating costs for both branch and unit state banks were U-shaped or upward sloping for several measures of bank output [1]. He concluded that the optimal size for a bank is from ten to 25 million in deposits. If cost of funds is constant across banks in a state, the smaller-size banks all enjoy cost advantages over the largest sized banks in the unit banking state. But only banks in the smallest size category in Arizona enjoy cost advantages over the largest-sized banks in that state. It is difficult to understand how the medium-sized banks compete for consumer loans in a statewide branching state.

An alternative explanation might be that one cannot assume that the cost of funds is constant across banks in a state. Perhaps the middle-sized banks in Arizona pay relatively high rates on savings to attract customers from the large banks in that state and consequently charge higher loan rates to nondepositors. Three out of seven banks in the size categories of one to 80 million dollars charged different rates to nondepositors versus depositors. The average difference in rates charged was 50 basis points. However, all of the banks in the largest size category offered rates that were different for depositors and non-depositors.

In summary, we found that, on average, bank rates on consumer loans were significantly lower in Illinois relative to Arizona. There was a difference of 20 basis points in average rates charged by the largest banks in the two states. However, there were larger differences between average rates charged by the medium- and small-sized banks in the two states. On average, rates from banks in Illinois that were not in the largest size category were lower than those charged by the largest banks. This was not true in Arizona where the medium-sized banks charged rates higher than those charged by the largest-sized banks. These differences in behavior patterns for medium-sized banks in the two states could be related to differences in cost of funds or operating costs. However, data are not available in this study to perform further analysis of this phenomenon.

C. Rates From Credit Unions

Many credit unions do not have the operating expenses of other lenders and all are nonprofit organizations. These factors combine to enable credit unions to offer lower rates on consumer loans than are available from other lenders. One would not expect to find that size of institution had a significant effect on rates from credit unions. However, past studies have found that credit union rates are influenced by the number of bank competitors in the credit union's market. In the following analysis, we investigate both questions.

The average rates for consumer loans offered by credit unions in Arizona were consistently higher than the rates in Illinois. Significance tests of the differences in rates showed that the average rates for credit union loans in the two states were significantly different for only two classifications of unsecured personal loans.

Loan Type	Illinois	Arizona	t-value
New auto	13.29	14.00	1.18
Late model used auto	14.28	14.67	.59
Older model used auto	14.51	15.16	.93
$1000, 12-month unsecured	14.78	16.29	2.05*
$2000, 24-month unsecured	14.81	16.00	1.43
$4000, 36-month unsecured	15.03	16.80	1.99*

*Significant at the five percent level.

In Illinois and Arizona, large credit unions charged lower rates for new auto loans than small credit unions. There was not a significant relationship between rates charged by credit unions for any of the types of credit and the number of banks in the market served by the credit union. There were no significant differences in average rates charged by credit unions operating in small towns versus large cities in Illinois. The analysis of rates from credit unions suggest that the banking structure in a state has little influence on those rates. Credit union rates were generally the lowest rates available in either state and reflect historical regulations of rates. Average rates from credit unions were not significantly different in the two states except for two types of unsecured personal loans. In those cases, rates were significantly lower in Illinois than in Arizona.

D. Rates From Savings and Loan Associations

A small number of S&Ls competed in the consumer credit market in either state. However, given that these institutions are relatively new to the area of consumer lending, these data provide some interesting insights into the market positioning strategies adopted by S&Ls.

Loan rates charged by S&Ls in Arizona were significantly higher than those charged by S&Ls for similar loans in Illinois. There was evidence that large S&Ls in Illinois charged lower rates, relative to small S&Ls, for auto loans and mobile home loans but charged higher rates for unsecured personal loans. Perhaps large S&Ls positioned themselves in the market to gain share in auto loans and mobile home loans--both loan types that are relatively less risky than other types

of consumer credit because of the marketability of collateral on the loan. There was no evidence that S&Ls in Illinois charged rates that varied according to the number of bank competitors in their local market.

E. Rates From Consumer Finance Companies

Significance tests of differences in average "most likely" rates offered by national finance companies showed that average rates for unsecured personal loans of $2000 and $4000 was 293 basis points lower in Arizona than in Illinois. For other types of loans, rates were lower in Arizona but the differences were not significant. Large independent finance companies tended to have higher rates than small companies in Illinois. Independent finance companies in markets with a large number of bank competitors charged higher rates in general than did finance companies serving markets with a small number of competitors.

F. Conclusions

The structure of the banking market in a state has been found to be significantly related to the cost of credit and other banking services in cross-state analyses. In this analysis of the level of prices for consumer loans in two states that differed in terms of bank structure, average rates for some types of credit were significantly different across the states but were not significantly different for others. And the results were not consistent across all types of lenders.

Rates of finance charge for revolving credit were not significantly different between the states. However, there was notable diversity in fees and other requirements on revolving credit accounts both within

states and across states. In contrast to the results for revolving credit, the level of rates for unsecured personal loans differed significantly between states for banks, credit unions, and finance companies and within states across local markets. The results for auto loans were mixed. Banks in Arizona, on average, charged significantly higher rates for new auto loans than did banks in Illinois. Although there are important national competitors in that market, there were still significant interstate differences in bank rates for auto loans that may be attributed to differences in competitive conditions in markets that may be traced to the structure of banking in the state. Average rates for new auto loans from credit unions were not significantly different across states.

The public policy implications of the results of this study are that even in a market with highly concentrated banking there was workable competition that kept rates for consumer credit at a level that was consistent with the general level of rates in the economy. In a market with greater competition among banks, rates for most types of consumer credit were significantly lower than those found in the concentrated market. Deregulation of rates is typically associated with an increase in variation of terms available and this study found a wide range of rates available in an unregulated market which highlights the importance of credit shopping.

FOOTNOTES

[1]New York state had a sunset provision and voted to extend the 25 percent ceiling in June 1983.

[2]Report of the National Commission on Consumer Finance, Consumer Credit in the United States, December 1972, p. 117.

[3]Legislation to remove rate ceilings in Arizona was approved on April 23, 1980. Rate ceilings for certain types of credit and for certain types of lenders still existed but these restrictions were not relevant to this study.

[4]In January 1982, banks in Illinois were granted authority for limited branching within that state.

[5]State and Metropolitan Area Data Book, U.S. Department of Commerce, Bureau of the Census, p. 449.

[6]Donald Jacobs, "The Framework of Commercial Bank Regulation: An Appraisal," Studies on Banking Competition and the Banking Structure, p. 347.

[7]State and Metropolitan Area Data Book, U.S. Department of Commerce, Bureau of the Census.

[8]The rate available to the consumer from these companies at the time the data were collected was 11.9 percent for certain models of new cars.

[9]The series of rates for new auto loans switched from 36-month loans to 48-month loans in February 1983 when the longer term loan became the more common maturity offered.

[10]A multiple regression of the commercial bank auto loan rate on the Treasury bond rate yielded the following:

Auto loan rate = 6.82 + .56 (3-year Treasury rate)$_{-1}$ + 1.72 (Dummy = 1)
R^2 = .95. With this equation, the estimate for the 36-month auto loan rate for February 1983 from commercial banks is 14.02 percent.

[11]G.19, Federal Reserve Statistical Release, Federal Reserve Board, March 10, 1983.

FOOTNOTES (continued)

[12]"Bank Cuts Consumer Loan Rates," New York Times, April 7, 1983.

[13]There is some belief that rates are lowest on the East coast and trend upward as one moves West. Consequently, these rates may represent the minimum most likely rate for new auto loans from banks during the study period.

[14]G.19, Federal Reserve Statistical Release, Federal Reserve Board, March 10, 1983.

[15]See [8] for an analysis of competition between banks and finance companies in Illinois.

[16]A similar distribution for each state including only the activity of banks is included in Appendix B.

[17]Retail Banking Report, Vol. II, Number 8, April 26, 1983, p. 8.

[18]G.19, Federal Reserve Statistical Release, Federal Reserve Board, March 10, 1983.

[19]The Consumer Rate Journal, Financial Information Center, March 1, 1983.

[20]"Finance Companies Expand," American Banker, June 8, 1983, p. 1.

[21]The Consumer Rate Journal, The Financial Information Center, March 1, 1983.

[22]"Banks to Charge You More for Credit Card Privileges," USA Today, March 2, 1983.

[23]The four-firm concentration ratios for direct consumer lending in 1972 was three percent and 67 percent in Illinois and Arizona, respectively [9].

[24]The difference in average rates on new auto loans made by banks in the two states in 1971 was 179 basis points ([10], p. 119).

REFERENCES

1. Benston, G., G.A. Hanweck, and D.B. Humphrey, "Scale Economies in Banking: A Restructuring and Reassessment," Journal of Money, Credit, and Banking, Volume XIV, No. 4., Part I, (November 1982), pp. 435-456.

2. Greer, D.F. and E.A. Nagata, "An Econometric Analysis of the New Auto Credit Market," The National Commission on Consumer Finance Technical Studies, Vol. IV, ed. D.F. Greer and R.P. Shay, Washington, D.C.

3. Heggestad, A.A. and J.J. Mingo, "Prices, Nonprices, and Concentration in Commercial Banking," Journal of Money, Credit, and Banking, Vol. 8, Number 1, (February 1976), pp. 107-117.

4. Heggestad, A.A., "An Evaluation of Interinstitutional Competition for Consumer Financial Services," The Costs and Benefits of Public Regulation of Consumer Financial Services, Abt Associates, Inc., Cambridge, Massachusetts, 1979.

5. Heggestad, A.A. and J.J. Mingo, "The Competitive Condition of U.S. Banking Markets and the Impact of Structural Reform," Journal of Finance, Vol. 32, Number 3 (June 1977), pp. 649-661.

6. Peterson, R.L. and D. Black, "Consumer Credit Shopping," Journal of Retail Banking, Vol. IV, Number 3 (Fall 1982), pp. 50-61.

7. Peterson, R.L., "Usury Laws and Consumer Credit: A Note," Journal of Finance, Vol. 38, Number 4 (September 1983).

8. Sullivan, A.C., "Competition in the Market for Consumer Loans," forthcoming in the Journal of Economics and Business.

9. National Commission on Consumer Finance, Technical Studies, Volume III.

10. National Commission on Consumer Finance, Report on Consumer Credit in the United States, December 1972.

APPENDIX A:

SAMPLE QUESTIONNAIRE

Bank Questionaire - Illinois

CREDIT RESEARCH CENTER

The Credit Research Center, Purdue University is conducting a survey of RATES ON CONSUMER CREDIT CONTRACTS in states without rate ceilings. Your institution was selected at random to be included in the sample for the study, and your cooperation is most important to the success of the project. The questions pertain to terms of loans issued by your bank to consumers IN THE STATE OF ILLINOIS ONLY. The information that you provide will be handled exclusively by personnel of the Credit Research Center. The identities of the participants will not be disclosed with the results of the study. You may receive a copy of the final study at no charge by filling in the form at the end of the questionnaire.

A self-addressed, stamped envelope is enclosed for you to return the completed questionnaire. A prompt return is critical, since we wish to measure finance rates which were charged throughout the state during the week that you receive the questionnaire (March 28 - April 2, 1983).

Please respond to the following short set of questions.

1. First, let us consider the FINANCE RATES charged on loans made to NON-DEPOSITORS. Please answer the following questions:

a. What is the ANNUAL PERCENTAGE RATE (APR) that you were MOST LIKELY to have charged for the following direct loans to consumers? The "most likely" rate is that charged on the largest dollar volume of new loans made in each category during the period March 28-April 2, 1983.

b. Over the past 30 days, what has been the HIGHEST and LOWEST rates that your bank has charged on two or more contracts to NON-DEPOSITORS?

c. Please CHECK box if majority of loans are at a VARIABLE RATE.

	Most Likely Rate	Highest Rate	Lowest Rate	Don't Provide This Type Of Credit (Check if appropriate)
☐ (1) NEW CAR, $8000, 85% loan-to-dealer-cost (wholesale) ratio, 48-months	____	____	____	____
☐ (2) LATE MODEL USED CAR, (under 2 yrs.) $5000, 90% loan-to-dealer-cost (wholesale) ratio, 42-48 months	____	____	____	____
☐ (3) OLDER MODEL USED CAR, (3-4 yrs.) $3000, 90% loan-to-dealer-cost (wholesale) ratio, 36-months	____	____	____	____
☐ (4) SECOND MORTGAGE LOAN, $10,000, 5-years, loan-to-equity value not greater than 75%:				
(a) APR	____	____	____	____
(b) POINTS	____	____	____	____
(5) UNSECURED PERSONAL LOANS:				
(1) $1000, 12-month	____	____	____	____
(2) $2000, 24-month	____	____	____	____
(3) $4000, 36-month	____	____	____	____

2. Next, let us consider the FINANCE RATES charged on loans to YOUR OWN DEPOSITORS.

a. IN COMPARISON TO RATES CHARGED TO NON-DEPOSITORS do you charge LOWER RATES to depositors as a GENERAL POLICY or charge lower rates ONLY TO DEPOSITORS WHO HAVE "PACKAGE ACCOUNTS" that provide several services for which the customer pays a monthly fee?

YES ____ NO ____

b. If you answered NO, GO TO QUESTION 3; otherwise, please continue with question 2 on the next page.

Question 2 - continued

(b-1). What is the ANNUAL PERCENTAGE RATE (APR) that you were MOST LIKELY to have charged for the following direct loans TO YOUR OWN DEPOSITORS? The "most likely" rate is that rate charged on the largest dollar volume of new loans in each category during the period March 28-April 2, 1983.

(b-2) Over the past 30 days, what has been the HIGHEST and LOWEST rates that your bank has charged on two or more contracts to YOUR OWN DEPOSITORS?

c. Please CHECK box if majority of loans are at a VARIABLE RATE.	Most Likely Rate	Highest Rate	Lowest Rate	Don't Provide This Type Of Credit (Check if appropriate)
☐ (1) NEW CAR, $8000, 85% loan-to dealer-cost (wholesale) ratio, 48-months	____	____	____	____
☐ (2) LATE MODEL USED CAR, (under 2 yrs.) $5000, 90% loan-to-dealer-cost (wholesale) ratio, 42-48 months.	____	____	____	____
☐ (3) OLDER MODEL USED CAR, (3-4 yrs.) $3000, 90% loan-to-dealer-cost (wholesale) ratio, 36 months	____	____	____	____
☐ (4) SECOND MORTGAGE LOAN, $10,000 5 years, loan-to-equity value not greater than 75%:				
(a) APR	____	____	____	____
(b) POINTS	____	____	____	____
(5) UNSECURED PERSONAL LOANS:				
(1) $1000, 12-month	____	____	____	____
(2) $2000, 24-month	____	____	____	____
(3) $4000, 36-month	____	____	____	____

3. Does your bank ISSUE BANK CREDIT CARDS (as direct issuer or as an agent bank)? YES ____: a. MasterCard ____ VISA ____ (Check both if applicable)

If NO, go to question 10.

4. What is the PREDOMINANT ANNUAL PERCENTAGE RATE (APR) currently charged on those credit card accounts by your bank to CARDHOLDERS IN THE STATE OF ILLINOIS?

a. MasterCard _____%

b. VISA _____%

5. Do you charge an ANNUAL FEE on any of these credit cards?

YES _____ If NO, go to Question 7.

6. What is the PREDOMINANT ANNUAL FEE currently charged by your bank ON THESE CREDIT CARD ACCOUNTS IN THE STATE OF ILLINOIS?

a. MasterCard $_____ per year

b. VISA $_____ per year

7. Do you REQUIRE a cardholder to maintain a MINIMUM DEPOSIT BALANCE in your bank?

_____ NO

_____ YES: What is the minimum? $ _____

8. Do you charge a TRANSACTION FEE each time your bank credit card is used at retailers or at other points of sale? YES _____ If NO, go to question 10.

9. What is the PREDOMINANT TRANSACTION FEE ON THESE CREDIT CARD ACCOUNTS IN THE STATE OF ILLINOIS?

a. MasterCard _____ cents per transaction

b. VISA _____ cents per transaction.

10. Approximately HOW MANY other different COMMERCIAL BANKS COMPETE WITH YOU in your market area for direct consumer loans in the state of Illinois? _____

11. Finally, to help us measure the adequacy of our sample coverage, please provide the following:

a. Name of your bank _____

b. City _____

c. Approximate DOLLAR AMOUNT OF CONSUMER CREDIT OUTSTANDING (excluding first mortgage credit, but NOT excluding second mortgage loans) at your bank on December 31, 1982 for office(s) located in Illinois?

$ _____

If you wish to receive a copy of the completed study without charge, please show below the name and address of the person to whom it should be sent:

_____

_____

_____

_____

_____

Zip Code

Should you have questions or comments, please write or telephone.

Thank you for your help!

Robert W. Johnson

Robert W. Johnson, Director

A Charlene Sullivan

A. Charlene Sullivan, Associate Director

Credit Research Center
Krannert Graduate School
of Management
Purdue University
West Lafayette, IN 47907

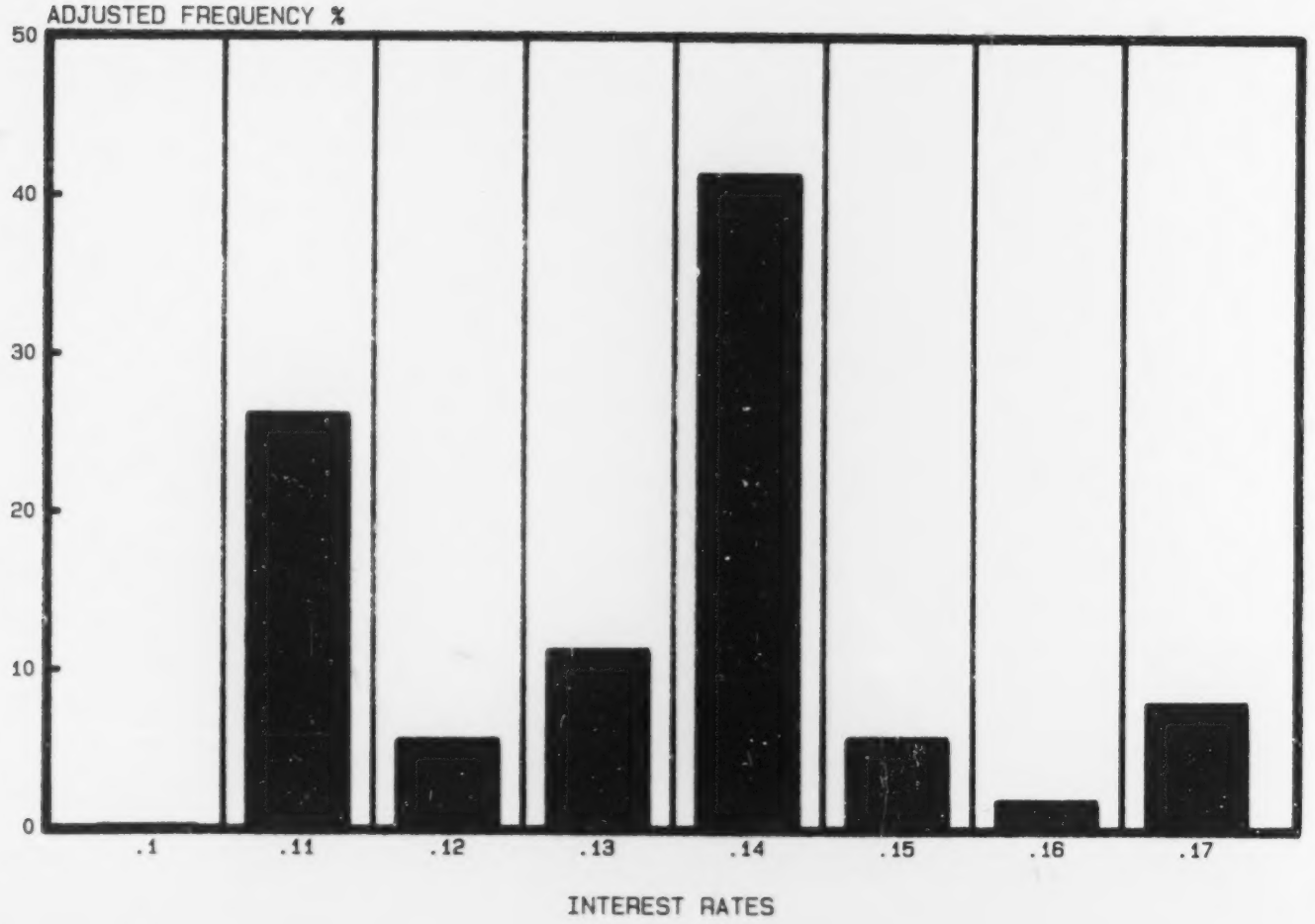
(317) 494-4380

APPENDIX B:

VOLUME-WEIGHTED FREQUENCY DISTRIBUTION OF RATES ON NEW AUTO LOANS FOR BANKS

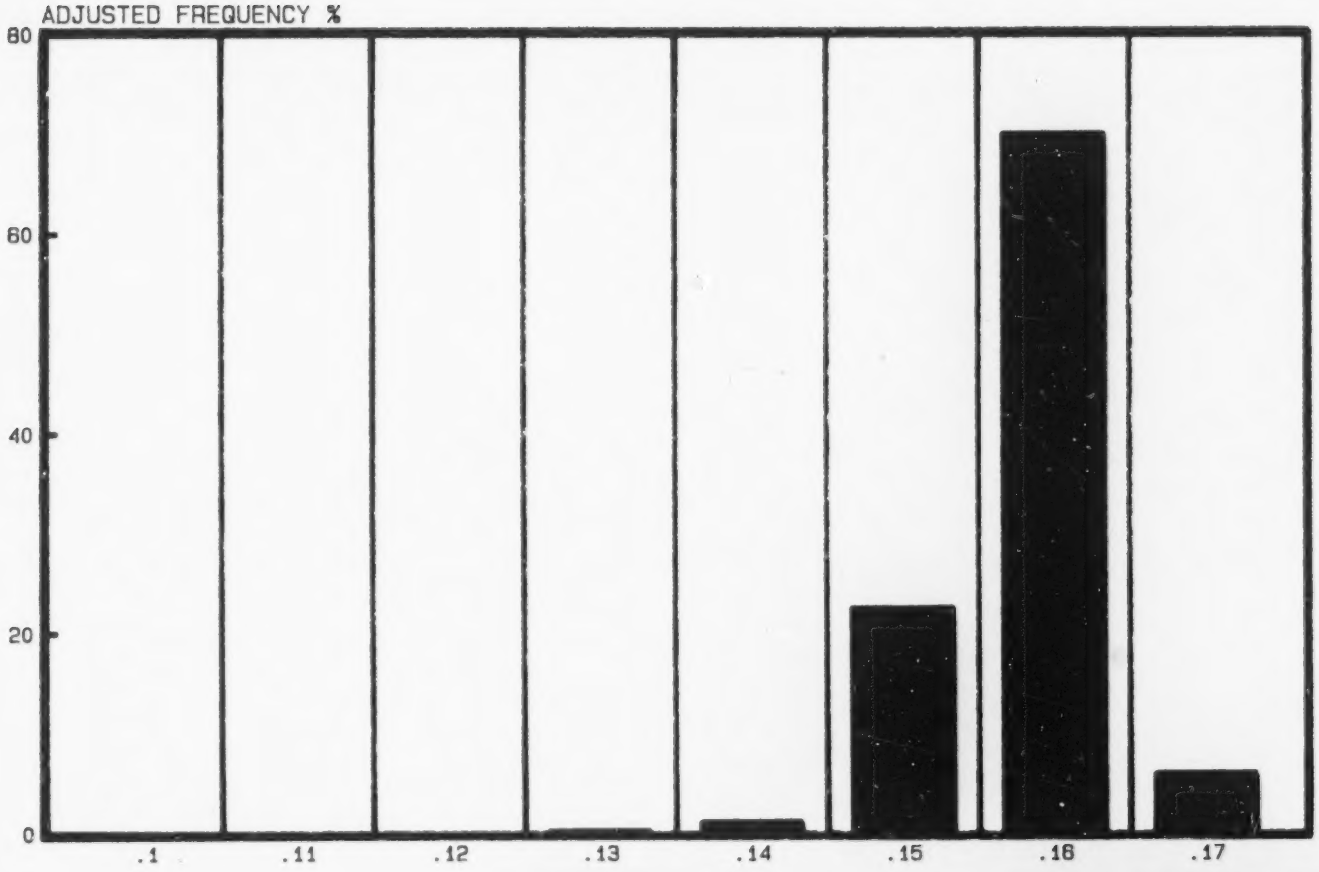
ILLINOIS

BANKS NEW CAR LOANS



ARIZONA

BANKS NEW CAR LOANS



BEST AVAILABLE COPY

PUBLICATIONS
CREDIT RESEARCH CENTER

MONOGRAPH No. 1: An Empirical Analysis of Retail Revolving Credit
MONOGRAPH No. 2: Credit Policies and Store Locations in Arkansas Border Cities: Merchant Reactions to a Ten Percent Finance Charge Ceiling
MONOGRAPH No. 3: Research Topics in Mortgage Markets: Proceedings of a Seminar
MONOGRAPH No. 4: An Economic Report on Consumer Lending in Texas
MONOGRAPH No. 5: Mortgage Banking 1963 to 1972: A Financial Intermediary in Transition
MONOGRAPH No. 6: A Thesaurus of Terms in Mortgage and Consumer Credit
MONOGRAPH No. 7: A Bibliography of Consumer Financial Services and Regulation
MONOGRAPH No. 8: A Compilation of Federal and State Laws Regulating Consumer Financial Services
MONOGRAPH No. 10: The Impact of Regulation on the Provision of Consumer Financial Services by Depository Institutions: Research Backgrounds and Needs
MONOGRAPH No. 12: Cost/Benefit Analysis of Creditors' Remedies
MONOGRAPH No. 13: Consumer Perception of Credit Insurance on Retail Purchases
MONOGRAPH No. 14: An Economic Analysis of the "Due On Sale" Clause in the California Mortgage Market
MONOGRAPH No. 15: Credit Unions: CRC 1979 Creditors Survey
MONOGRAPH No. 16: Savings and Loan Associations: CRC 1979 Creditors Survey
MONOGRAPH No. 17: Commercial Banks: CRC 1979 Creditors Survey
MONOGRAPH No. 18: Consumer Finance Companies: CRC 1979 Creditors Survey
MONOGRAPH No. 19: Retailers: CRC 1979 Creditors Survey
MONOGRAPH No. 20: Sales Finance Companies: CRC 1979 Creditors Survey
MONOGRAPH No. 21: Consumer Financial Data Sources
MONOGRAPH No. 22: CRC 1979 Consumer Financial Survey
MONOGRAPH No. 23: Consumer Bankruptcy Study, Volume 1, Consumers' Right to Bankruptcy Origins and Effects
MONOGRAPH No. 24: Personal Bankruptcy: Causes, Costs and Benefits, Volume II
WORKING PAPER No. 1: The Use of Department Store Revolving Credit: Account Use Patterns, Customer Profitability, the Value of Revolving Credit, and the Probable Incidence of Credit Rationing
WORKING PAPER No. 2: EFTS and Consumer Credit (Revised)
WORKING PAPER No. 3: The Impact of General Credit Restraint on Consumer Instalment Credit Flows
WORKING PAPER No. 4: The Effect of Alternative Billing Methods Upon Retail Revolving Credit Yields
WORKING PAPER No. 5: Delinquency Rates on Consumer and Mortgage Debt: Their Determinants and Impact
WORKING PAPER No. 6: Determinants of Commercial Bank Automobile Loan Rates
WORKING PAPER No. 7: Personal Loan Cash Flows at Finance Companies
WORKING PAPER No. 8: Discrimination on the Basis of Sex Under the Equal Credit Opportunity Act
WORKING PAPER No. 9: Competition Between Banks and Finance Companies: A Cross Section Study of Personal Loan Debtors
WORKING PAPER No. 10: Regulatory Influences on Commercial Bank Personal Loan Rates
WORKING PAPER No. 11: Commercial Bank Consumer Loan Refinancings
WORKING PAPER No. 12: The Impact of Restricted Creditors' Remedies on Automobile Finance Companies in Wisconsin
WORKING PAPER No. 13: Changes in Finance Personal Loan Policies Following Enactment of the Wisconsin Consumer Act
WORKING PAPER No. 14: Creditor Remedy Restrictions and Interstate Differences in Personal Loan Rates and Availability: A Supplementary Analysis
WORKING PAPER No. 15: The Impact of Creditors' Remedies on Consumer Loan Charges
WORKING PAPER No. 16: Cost/Benefit Analysis of Minimum Charges on Revolving Credit Accounts
WORKING PAPER No. 17: Occupational and Employment Variations in Commercial Bank Consumer Credit Risk
WORKING PAPER No. 18: Problems in Applying Discriminant Analysis in Credit Scoring Models
WORKING PAPER No. 19: Testing for Sex Discrimination in Commercial Bank Consumer Lending
WORKING PAPER No. 20: Banks' Lending Response to Restricted Creditor Remedies
WORKING PAPER No. 21: Bank and Retail Credit Card Yields Under Alternative Assessment Methods
WORKING PAPER No. 22: An Economic Analysis of Electronic Funds Transfer System: The Theory of Credit Markets
WORKING PAPER No. 24: The Community Re-investment Act of 1977: Its Legislative History and Its Impact on Applications for Changes in Structure Made by Depository Institutions to the Four Federal Financial Supervisory Agencies
WORKING PAPER No. 25: Junior Mortgage Financing and Other Borrowing Against Inflated Housing Equity
WORKING PAPER No. 26: Consumer Perceptions of Credit Bureaus
WORKING PAPER No. 27: Mobile Home Demand and Sources of Financing
WORKING PAPER No. 28: An Investigation of Sex Discrimination of Commercial Banks' Direct Consumer Lending
WORKING PAPER No. 29: The Transfer Implications of Consumer Credit Regulation
WORKING PAPER No. 30: Accelerating Inflation and the Distribution of Household Savings Incentives
WORKING PAPER No. 31: Rates of Return on GNMA Securities: the Cost of Mortgage Funds
WORKING PAPER No. 32: The Response of Commercial Banks to Rate Ceilings and Restrictions on Remedies on Consumer Credit Contracts
WORKING PAPER No. 33: Second Mortgage Survey, 1979
WORKING PAPER No. 34: Value Pricing of Bank Card Services
WORKING PAPER No. 35: Restrictive Effects of Rate Ceilings on Consumer Choice: The Massachusetts Experience
WORKING PAPER No. 36: Evidence of the Effect of Restrictive Loan Rate Ceilings on Prices of Consumer Financial Services
WORKING PAPER No. 37: Household Financial Behavior: Implications For Consumer Spending
WORKING PAPER No. 38: Effects of Consumer Loan Rate Ceilings on Competition Between Banks and Finance Companies
WORKING PAPER No. 39: 1980 Second Mortgage Survey
WORKING PAPER No. 40: Impact of a Ten Percent Usury Ceiling: Empirical Evidence
WORKING PAPER No. 41: Cost and Benefits of Restrictions on Creditor's Remedies
WORKING PAPER No. 42: Consumer Use of Mortgage Credit
WORKING PAPER No. 43: Second Mortgage Survey 1981
WORKING PAPER No. 44: Esset Exemptions and Propensity to File Personal Bankruptcy
WORKING PAPER No. 45: The Role of Education Debt in Consumers' Total Debt Structure
WORKING PAPER No. 46: Applications of Performance Scoring to Accounts Receivable Management in Consumer Credit
WORKING PAPER No. 47: Economic Factors Associated with Personal Bankruptcy
WORKING PAPER No. 48: Legal Aspects of Variable Rate Financing
REPRINT No. 1: John J. McConnell, "Evaluation Model Can Maximize Single-Family Servicing Profits," *Mortgage Banker*, March 1975; and "Profit/Loss Evaluation Model Has Varied Application," *Mortgage Banker*, May 1975 (Out-of-print)
REPRINT No. 2: Robert W. Johnson, "The Rationale For Acquisition of Finance Companies by Bank Holding Companies," *The Banking Law Journal*, April 1975 (Out-of-print)
REPRINT No. 3: William C. Dunkelberg and Robert H. Smiley, "Subsidies in the Use of Revolving Credit," *Money, Credit, and Banking*, November 1975

(Continued on back cover)

REPRINT No. 4: Michael S. Long, "Credit Screening System Selection," *Journal of Financial and Quantitative Analysis*, June 1975 (Out-of-print)

REPRINT No. 5: John J. McConnell, "Valuation of a Mortgage Company's Servicing Portfolio," *Journal of Financial and Quantitative Analysis*, September 1976

REPRINT No. 6: Richard L. Peterson, "The Impact of General Credit Restraint of the Supply of Commercial Bank Consumer Installment Credit," *Money, Credit, and Banking*, November 1976

REPRINT No. 7: John J. McConnell, "Mortgage Company Bids on the GNMA Auction," *Journal of Bank Research*, winter 1977

REPRINT No. 8: Richard L. Peterson, "Factors Affecting the Growth of Bank Credit Card and Check Credit," *The Journal of Finance*, May 1977

REPRINT No. 9: John J. McConnell, "Price Distortions Induced by the Revenue Structure of Federally-Sponsored Mortgage Loan Programs," *Journal of Finance*, September 1977

REPRINT No. 10: James F. Smith, "The Equal Credit Opportunity Act of 1974: A Cost/Benefit Analysis," *The Journal of Finance*, May 1977

REPRINT No. 11: David S. Kidwell and Richard L. Peterson, "A Close Look at Credit Unions," *The Bankers Magazine*, January-February 1978

REPRINT No. 12: Robert W. Johnson, "Pricing of Bank Card Services," *The Journal of Retail Banking*, June 1979

REPRINT No. 13: Richard L. Peterson, "The Costs of Consumer Credit Regulation," *Issues in Bank Regulation*, Winter 1979

REPRINT No. 14: Robert W. Johnson, "Economic Effects of Graduated Rate Ceilings on Revolving Credit," *Journal of Retail Banking*, Vol. II, No. 1, March 1980.

REPRINT No. 15: Robert W. Johnson and A. Charlene Sullivan, "Segmentation of the Consumer Loan Market," *Journal of Retail Banking*, Vol. III, No. 3, September 1981.

REPRINT No. 16: Richard L. Peterson, "An Investigation of Sex Discrimination in Commercial Banks' Direct Consumer Lending," *The Bell Journal of Economics*, Vol. 12, No. 2, Autumn 1981.